

- <110> Cheikh, Nordine
Fisher, Dane
Liu, Jingdong
- <120> Nucleic Acid Molecules And Other Molecules Associated With
The Sucrose Pathway
- <130> 04983.0015.US01/38-21(15089)B
- <150> No. 60/067,000 filed November 24, 1997; No. 60/069,472
filed December 9, 1997; No. 60/072,888 filed January 27,
1998; No. 60/074,201 filed February 10, 1998; No.
60/074,282 filed February 10, 1998; No. 60/074,280 filed
February 10, 1998; No. 60/074,281 filed February 10,
1998; No. 60/074,566 filed February 12, 1998; No.
60/074,567 filed February 12, 1998; No. 60/074,565 filed
February 12, 1998; No. 60/075,462 filed February 19,
1998; No. 60/074,789 filed February 19, 1998; No.
60/075,459 filed February 19, 1998; No. 60/075,461 filed
February 19, 1998; No. 60/075,464 filed February 19,
1998; No. 60/075,460 filed February 19, 1998; No.
60/075,463 filed February 19, 1998; No. 60/076,912 filed
March 6, 1998; No. 60/077,231 filed March 9, 1998; No.
60/077,229 filed March 9, 1998; No. 60/077,230 filed
March 9, 1998; No. 60/078,368 filed March 18, 1998; No.
60/080,844 filed April 7, 1998; No. 60/083,067 filed
April 27, 1998, "Nucleic Acid Molecules and Other
Molecules Associated with Plants.(soymon016)" docket
No. 38-21(15348)A filed April 29, 1998; No. 60/083,387
filed April 29, 1998; No. 60/083,388 filed April 29,
1998; No. 60/083,389 filed April 29, 1998, "Nucleic Acid
Molecules and Other Molecules Associated with the
Phosphogluconate Pathway." docket No. 38-21(15365)A
filed April 30, 1998; No. 60/085,224 filed May 13, 1998,
No. 60/085,223 filed May 13, 1998; No. 60/085,222 filed
May 13, 1998; No. 60/086,186 filed May 21, 1998; No.
60/086,187 filed May 21, 1998; No. 60/086,185 filed May
21, 1998; No. 60/086,184 filed May 21, 1998; No.
60/086,183 filed May 21, 1998; No. 60/086,188 filed May
21, 1998; No. 60/087,422 filed June 1, 1998; No. 60/089,
524 filed June 16, 1998; No. 60/089,810 filed June 18,
1998; No. 60/089,814 filed June 18, 1998; No. 60/089,793
filed June 18, 1998; No. 60/090,170 filed June 22, 1998,
No. 60/090,928 filed June 26, 1998; No. 60/091,035
filed June 29, 1998; No. 60/091,405 filed June 30, 1998,
No. 60/092,036 filed July 8, 1998; No. 60/099,667 filed
September 9, 1998; No. 60/099,670 filed September 9,
1998; No. 60/099,697 filed September 9, 1998; No.
60/100,674 filed September 16, 1998; No. 60/100,673 filed
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1998; No. 60/101,131 filed September 21, 1998; No.
60/101,132 filed September 21, 1998; No. 60/101,130 filed

September 21, 1998; No. 60/101,508 filed September 22, 1998; No. 60/101,344 filed September 22, 1998; No. 60/101,347 filed September 22, 1998; No. 60/101,343 filed September 22, 1998; No. 60/101,707 filed September 25, 1998; No. 60/104,126 filed October 13, 1998; No. 60/104,128 filed October 13, 1998; No. 60/104,127 filed October 13, 1998; No. 60/104,124 filed October 13, 1998, No. 60/104,123 filed October 13, 1998; No. 60/109,018 filed November 18, 1998; No. 60/108,996 filed November 18, 1998, "Nucleic Acid Molecules and Other Molecules Associated With Plants" docket No. 38-21(15075)B filed November 24, 1998; No. 09/210,297 filed December 8, 1998, "Nucleic acid Molecules and other Molecules associated with Plants" docket No. 38-21(15668)A filed December 11, 1998; No. 60/113,224 filed December 22, 1998 and "Nucleic Acid Molecules and Other Molecules Associated with Transcription in Plants" docket No. 38-21(15300)B filed January 12, 1999

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No. 60/067,000 filed November 24, 1997; No. 60/069,472 filed December 9, 1997; No. 60/072,888 filed January 27, 1998; No. 60/074,201 filed February 10, 1998; No. 60/074,282 filed February 10, 1998; No. 60/074,280 filed February 10, 1998; No. 60/074,281 filed February 10, 1998; No. 60/074,566 filed February 12, 1998; No. 60/074,567 filed February 12, 1998; No. 60/074,565 filed February 12, 1998; No. 60/075,462 filed February 19, 1998; No. 60/074,789 filed February 19, 1998; No. 60/075,459 filed February 19, 1998; No. 60/075,461 filed February 19, 1998; No. 60/075,464 filed February 19, 1998; No. 60/075,460 filed February 19, 1998; No. 60/075,463 filed February 19, 1998; No. 60/076,912 filed March 6, 1998; No. 60/077,231 filed March 9, 1998; No. 60/077,229 filed March 9, 1998; No. 60/077,230 filed March 9, 1998; No. 60/078,368 filed March 18, 1998; No. 60/080,844 filed April 7, 1998; No. 60/083,067 filed April 27, 1998, "Nucleic Acid Molecules and Other Molecules Associated with Plants.(soymon016)" docket No. 38-21(15348)A filed April 29, 1998; No. 60/083,387 filed April 29, 1998; No. 60/083,388 filed April 29, 1998; No. 60/083,389 filed April 29, 1998, "Nucleic Acid Molecules and Other Molecules Associated with the Phosphogluconate Pathway." docket No. 38-21(15365)A filed April 30, 1998; No. 60/085,224 filed May 13, 1998, No. 60/085,223 filed May 13, 1998; No. 60/085,222 filed May 13, 1998; No. 60/086,186 filed May 21, 1998; No. 60/086,187 filed May 21, 1998; No. 60/086,185 filed May 21, 1998; No. 60/086,184 filed May 21, 1998; No. 60/086,183 filed May 21, 1998; No. 60/086188 filed May 21, 1998; No. 60/087,422 filed June 1, 1998; No. 60/089,524 filed June 16, 1998; No. 60/089,810 filed June 18, 1998; No. 60/089,814 filed June 18, 1998; No. 60/089,793 filed June 18, 1998; No. 60/090,170 filed June 22, 1998, No. 60/090,928 filed June 26, 1998; No. 60/091,035

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 No. 60/104,123 filed October 13, 1998; No. 60/109,018
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 18, 1998, "Nucleic Acid Molecules and Other Molecules
 Associated With Plants" docket No. 38-21(15075)B filed
 November 24, 1998; No. 09/210,297 filed December 8,
 1998, "Nucleic acid Molecules and other Molecules
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aggaagtgca	cgcctccctg	agggattggc taaagaccaa tgccagccct gaggttgctg 240
aatctactag	gatcatctac	ggaggctc 268

$\langle 210 \rangle$	34
$\langle 211 \rangle$	254

<212> nucleic acid
<213> Zea mays

<400> 34

ccatgttgct gctcagaact gctgggtgaa gaagggaggt gctttcactg gtgaagtcag 60
tgctgagatg ctggtcaacc ttggtgttcc ctgggtcatt cttggacact ctgaaaggag 120
agctctgctg ggagaatcaa atgaatttgt tggagacaag gttgcgtatg ccctgtctca 180
gggactaaag gtcattgcat gtgttgggtga gacccttgag cagagggagg ctgggtctac 240
catggatggt gttg 254

<210> 35
<211> 341
<212> nucleic acid
<213> Zea mays

<400> 35

cgccgtccga agctccgcac cccaatctaa tcgacacctc accgagatgg gccgcaagtt 60
cttcgtcggg ggcaactgga aatgcaatgg aaccacagat caggctcgaga agattgtcaa 120
aaccctgaat gaaggacagg ttcccccttc agatgttgtg gaggtcgttg tcagccctcc 180
ttatgtcttc cttcctgtgg tcaagagcca gctgcgccaa gagttccatg ttgctgctca 240
gaactgctgg gtgaagaagg gaggtgcttt cactggtgaa gtcagtgtg agatgtctgt 300
caaccttggg gttccctggg tcatcttggg cactctgaaa g 341

<210> 36
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 36

ttcggcacga gaaagagcta gcagcacagc ctgatgtoga tggttttctt gtcggtggag 60
cttctttgaa gcttgagttc atcgacatca tcaacgcggc caccgtgaag tccgcttaag 120
atgctacgct gaagacgaac atactttttt tttgctcaac tgtgctatgt aagctagtag 180
cttttgcgca ggagcagaga ctgttttggc tgcccccaac ttctagcttg agcttgctaa 240
taatgtttac c 251

<210> 37
 <211> 246
 <212> nucleic acid
 <213> Zea mays

 <400> 37

 tggctattgg aactggtaaa gttgccaccc cagctcaggc tcaggaagtg cacgcctccc 60
 tgagggattg gctaaagacc aatgccagcc ctgagggttg tgaatctact aggatcatct 120
 acggaggctc tgtaactgct gcgaactgca aagagctagc agcacagcct gatgtcgatg 180
 gttttcttgt cgggtggagct tctttgaagc ctgagttcat cgacatcatc aacgcggcca 240
 ccgtga 246

<210> 38
 <211> 270
 <212> nucleic acid
 <213> Zea mays

 <400> 38

 ggtgaagtca gtgctgagat gctcgtcaac cttgggtgtc cctgggtcat tcttggacac 60
 tctgaaagga gagctctgct gggagaatca aatgaatttg ttggagacaa ggttgcgtat 120
 gccctgtctc agggactaaa ggtcattgca tgtgttggtg agacccttga gcagagggag 180
 gctgggtcta ccatggatgt tgttgctgca caaacaaaag caattgctga gaagatcagg 240
 actggagcac gtattgttgc ctatgaacca 270

<210> 39
 <211> 277
 <212> nucleic acid
 <213> Zea mays

 <400> 39

 cgcagatcag gttgagaaga ttgtcaaaac cctgaatgaa ggaaatgttc cctcttcaga 60
 tgttgttgag gttgttgtca gtccctcctta tgtgttcctc ccggtgggtca agagccagct 120
 gcgtcaagag ttccaagttg ctgctcagaa ctgctgggtg aagaaggag gtgcattcac 180
 tggtgaaatt agtgctgaga tgctcgtcaa ccttggcggt ccctgggtca ttcttggaca 240
 ctctgaaagg agagctctgc tgggagaatc aaatgag 277

<210> 40
 <211> 261
 <212> nucleic acid
 <213> Zea mays

 <400> 40

 cccacgcgtc cggaactgct ggggtgaagaa gggaggtgct ttcactggtg aagtcagtgc 60
 tgagatgctc gtcaaccttg gtgttccctg ggtcattctt ggacactctg aaaggagagc 120
 tctgctggga gaatcaaatg aatttggttg agacaagggt gcgtatgccc tgtctcaggg 180
 actaaaggctc attgcatgtg ttggtgagac ccttgagcag agggaggctg ggtctaccat 240
 ggatgttggt gctgcacaaa c 261

<210> 41
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 41

 tgaagggagg tgcattcacc ggtgaaatta gtgctgagat gctcgtcaac cttggcggtc 60
 cctgggtcat tcttgacac tctgaaagga gagctctgct gggagaatca aatgagtttg 120
 ttggagacaa gggtgctttt gctctgtctc agggactaaa ggtcattgca tgtgttggtg 180
 agacccttga ggagagggag gctgggtcaa ccatggatgt tgttgctgca caaacaaaag 240
 caattgctga gaagatcaag gactggagca acgttg 276

<210> 42
 <211> 326
 <212> nucleic acid
 <213> Zea mays

 <400> 42

 ccaatctaga agcacacctc tccctctctc tctcttcgcc gtccgaagct ccgcacccca 60
 atctaatacga cacctcacccg agatgggccg caagtctgct gtcggtggca actggaaatg 120
 caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacaggttcc 180
 cccttcaatg ttgtggaggt cgttgctcagc cctccttatg tcttccttcc tgtgggtcaag 240
 agccagctgc gccaaagagtt ccatgttgct gctcagaact gctgggtgaa gaagggatgt 300
 gctttcactg gtgaagtcac gctgag 326

<210> 43
 <211> 244
 <212> nucleic acid
 <213> Zea mays

 <400> 43

 aactgcaaag agctagcagc acagcctgat gtcgatgggt ttccctgtcgg tggagcttct 60
 ttgaagcctg agttcatcga catcatcaac gcggccaccg tgaagtccgc ttaagatgct 120
 acgctgaaga cgaacatact ttttttttgc tcaactgtgc tatgtaagct agtagctttt 180
 gcgcaggagc agagactggt ttgcctgccc ccaacttcta gcttgagctt gctaataatg 240
 ttta 244

<210> 44
 <211> 258
 <212> nucleic acid
 <213> Zea mays

 <400> 44

 cccacgcgtc cgatgcaatg gaaccacaga tcagggtcgag aagattgtca aaaccctgaa 60
 tgaaggacag gttccccctt cagatgttgt cgagggtcgtt gtcagccctc cttatgtctt 120
 ccttcctgtg gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg 180
 ggtgaagaag ggagggtgctt tcaactggga agtcagtgtc gagatgctcg tcaaccttgg 240
 tgttccctgg gtcattct 258

<210> 45
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 45

 gaagctccgc acccaatcta atcgacacct caccgagatg ggccgcaagt tcttcgtcgg 60
 tggcaactgg aaatgcaatg gaaccacaga tcagggtcgag aagattgtca aaaccctgaa 120
 tgaaggacag gttccccctt acaatgttgt tgagggtcgtt gtcagccctc cttatgtctt 180
 ccttcctgtg gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg 240
 ggtgaagaag ggagggtgctt tcaact 265

tgggtcaagag ccagctgcgc caagagttcc aagtcgctgc tcagaactgc tgggtgaaga 240
 agggaggtgc attcactggt gaaaccagtgc ctgagatgct cgtcaacctt ggcgtctccc 300
 tgggtcactc ttggaca 317

<210> 49
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 49

ggaaatgcaa tggaaaccgca gatcagggttg agaagattgt caaaaccctg aatgaaggaa 60
 atgttccctc ttcagatggt gttgaggttg ttgtcagtc tccttatgtg ttcctcccg 120
 tgggtcaagag ccagctgcgc caagagttcc aagttgctgc tcagaactgc tgggtgaaga 180
 agggaggtgc attcactggt gaaattagtgc ctgagatgct cgtcaacctt ggcgttccct 240
 gggtcattct tggacactct gaa 263

<210> 50
 <211> 227
 <212> nucleic acid
 <213> Zea mays

<400> 50

ctttgaagcc tgagttcatc gacatcatca acggggccac cgtgaagtcc gcttaagatg 60
 ctacgctgaa gacgaacata cttttttttt gctcaactgt gctatgtaag ctagtagctt 120
 ttgcgagga gcagagactg ttttgctgc cccaacttc tagcttgagc ttgctaataa 180
 tgtttacctc tggacgtatc aataatggtg cttatgtatc ccctttt 227

<210> 51
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 51

ccagtctggg ctattggaac tggcaaagtc gccacccag ctcaggctca ggaagtgcac 60
 gcctccctga gggattgggt aaagatcaat gtcagccctg aggtctctga atctacaagg 120
 atcatctatg gaggttcagt aactgctgcg aactgcaaag agctggcagc acagcctgat 180

gtcgatgggtt tccttgtggg cgggtgcttct ttgaagcccg agttcatcga catcatcaac 240
gccgccaccg tgtgaagtcc gcttaagatg ttccaaccct tcaccctggt gcggtgatgt 300

<210> 52
<211> 348
<212> nucleic acid
<213> Zea mays

<400> 52

cogtactcaa tctaatoagac acccggccga gattggacgc aatttcttcg ttggtggcaa 60
ctggaaatgc aatggaaccg cagatcaggt tgagtagatt gtcaagacgc tgaatgaagg 120
aaatgttccc tcttcagatg ttgttgaggt tgtggtcagt cctccttatg tgttcctccc 180
gggtgtcaag agccagctgc tccaagagtt ctaagttgct gctcagaact gctgggtgaa 240
gaagggaggt gcattcactg gtgaaattag tgctgagatg ctcgtaacc ttggcggtcc 300
ctgggtcatt cttggacact ctgaaaggag agctctgtct gggagaat 348

<210> 53
<211> 264
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (48), (61), (222), (224), (233), (236), (241), (255)
<223> unsure at all n locations

<400> 53

gtgagaccct tgagcagagg gaggtgggt ctaccatgga tgttgtnct gcacaaacaa 60
nagcaattgc tgagaagatc aaggactgga gcaacgtagt tgttgctat gaaccagttt 120
gggctattgg aactggtaaa gttgccaccc cagctcaggc tcaggaagtg cacgcctccc 180
tgagggattg gctaaagacc aatgccagcc ctggggttgc tnantctata ggntcntcta 240
nggggcttta aaaantgctg ggaa 264

<210> 54
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 54
 gttcttcgtc ggtggcaact ggaaatgcaa tggaaccaca gatcaggctcg agaagattgt 60
 caaaaccctg aatgaaggac aggttcccc ttcagatggt gtcgaggctg ttgtcagccc 120
 tccttatgtc ttccttctcg tggtaagag ccagctgcgc caagagttcc atgttgctgc 180
 tcagaactgc tgggtgaaga agggaggtgc tttcactggt gaagt 225

<210> 55
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (88)
 <223>

<400> 55
 cttggcggttc cctgggtcat tcttgacac tctgcaagga gagctctgct gggagtttcc 60
 tgtgagtttg ttggagacaa gggttgntt gctctgtctc agggactaaa ggtcattgca 120
 tgtgttggtg agacccttga gtttagggag gctgggtcaa ccatggatgt tgttgctgca 180
 caaacaaaag caattgctga gaagatcaag gactggagca acgttgttct tgcctatgaa 240
 ccagtctggg ctattggaac tggcaaagtc gccacca 278

<210> 56
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 56
 gcccctcttc ctctcccca tccgtacca atctaataga caccggccg agatgggccc 60
 caagttcttc gttggtggca actggaaatg caatggaacc gcagatcagg ttgagaagat 120
 tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg tcgttgctcag 180
 tctctcttat gtgttctcc cggtgggtcaa gagccagctg cgccaagagt tccaagttgc 240
 tgctcagaac tgctgggtga agaagggagg tgcattcact ggtgaaatta gtgctgaaat 300
 gctcgtcaac cttggcg 317

<210> 57
 <211> 291
 <212> nucleic acid
 <213> Zea mays

<400> 57

ccgtacccaa tctaatacgac acccggccga gatgggccgc aagttcttcg ttggtggcaa 60
 ctggaaatgc aatggaaccg cagatcaggt tgagaagatt gtcaaaaccc tgaatgaagg 120
 aaatgttccc tcttcagatg ttgttgaggt cgttgtcagt cctccttatg tgttcctccc 180
 ggtggtcaag agccagctgc gccaaagagtt ccaagttgct gtcagaact gctgggtgaa 240
 gaagggaggt gcattcactg gtgaaattag tgctgaaatg ctgctcaacc t 291

<210> 58
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 58

acggaggctc tgtaactgcc gcgaaactgca aagagctagc agcacagcct gatgtcgatg 60
 ggtttcttgt cgggtggagct tctttgaagc ctgagttcat cgacatcatc aacgcggcca 120
 ccgtgaagtc cgcttaagat ggtacgcgtg agacgaacat actttttttt tgctcaactg 180
 tgctatgtaa gctagtagct tttggcgagc gacagagact ttgtttacct cccccaactt 240
 ttag 244

<210> 59
 <211> 254
 <212> nucleic acid
 <213> Zea mays

<400> 59

ccatccgtac ccaatctaata cgacacccgg ccgagatggg ccgcaagttc ttcgttggtg 60
 gcaactggaa atgcaatgga accacagatc aggttgagaa gattgtcaaa accctgaatg 120
 aaggaaatgt tcctcttcag atgttggtga ggtcgttgtc agtcctcctt atgtgttcct 180
 cccggtggtc aagagccagc tgcgccaaga gttccaagtt gctgctcaga actgctgggt 240
 gaagaaggga ggtg 254

<210> 60
 <211> 222
 <212> nucleic acid
 <213> Zea mays

<400> 60

tgctcgtaaa ccttggtgtt ccttgggtca ttcttggaca ctctgaaagg agagctctgc 60
 tgggagaatc aaatgaattt gttggagaca aggttgcgta tgccctgtct cagggactaa 120
 aggtcattgc atgtgttggg gagacccttg agcagagggga ggctgggtct accatggatg 180
 ttgttgctgc acaaacaaaa gcaattgctg agaagatcaa gg 222

<210> 61
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 61

atcgacacct caccgagatg ggccgcaagt tcttcgctcg tggcaactgg aaatgcaatg 60
 gaaccacaga tcaggctcgag aagattgtca aaaccctgaa tgaaggacag gttccccctt 120
 cagatgttgt ggaggctggt gtcagccctc cttatgtctt ctttctgtg gtcaagagcc 180
 agctgcgcca agagttccat gttgctgctc agaactgctg ggtgaagaag ggagggtgctt 240
 tcaactggtga agtcagtgtc gag 263

<210> 62
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 62

gaagctccgc acccaatcta atcgacacct caccgagatg ggccgcaagt tcttcgctcg 60
 tggcaactgg aaatgcaatg gaaccacaga tcaggctcgag aagattgtca aaaccctgaa 120
 tgaaggacag gttccccctt cagatgttgt tgaggctggt gtcagccctc ttatgtcttc 180
 ctttctgtgg tcaagagcca gctgcgcca gagttccatg ttgctgctca gaactgctgg 240
 gtgaagaagg gaggtgcttt cactggtgaa gtcagtgtc agatgctcgt ca 292

<210> 63
 <211> 312

<212> nucleic acid
<213> Zea mays

<400> 63

ctctccctct ctctctcttc gccgtccgaa gtcctgcacc ccaatctaata cgacacctca 60
ccgagatggg ccgcaagttc ttcgtcgggt gcaactggaa atgcaatgga accacagatc 120
aggtcgagaa gattgtcaaa accctgaatg aaggacaggt tcccccttca gatgttggtg 180
aggtcgttgt cagccctcct tatgtcttcc ttcctgtggt caagagccag ctgcgccaag 240
agttccatgt tgctgctcag aactgctggg tgaagaaggg aggtgctttc actggtgaag 300
tcagtgtga ga 312

<210> 64
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 64

atccaatcta gaagcacacc acaccctctc tctctcttcg ccgtccgaag caccgcacac 60
caatctaata gacacatcac cgagatgggc cgcaagttca tcgtcggtag caacaggaaa 120
tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa cactgaatga aggacaggtt 180
cccccatcag atgttggtga ggacgttggt agccacactt atgtcttctt tctgtgtgtc 240
aagagccagc agcgccaag 259

<210> 65
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 65

aagcgccct cctcctctcc cccatccgta cccaatctaa tcgacacccg gccgagatgg 60
gccgcaagtt cttcgttggt ggcaactgga aatgcaatgg aaccgcagat caggttgaga 120
agattgtcaa aaccctgaat gaaggaaatg ttccctcttc agatgttggt gaggttggtg 180
tcagtctctc ttatgtgttc ctcccgggtg tcaagagcca gctgcgcca gagttccaag 240
ttgtgctca gaactgctgg gtgaagaagg gaggtgcatt cactggtgaa attag 295

<210> 66
 <211> 320
 <212> nucleic acid
 <213> Zea mays

 <400> 66

 aaatccaatc tagaagcacc cctctccctc tctctctctt cgccgtccga agctccgcac 60
 cccaatctaa tcgacacctc accgagatgg gccgcaagtt cttcgtcggg ggcaactgga 120
 aatgcaatgg aaccacagat cagggtcgaga agattgtcaa aaccctgaat gaaggacagg 180
 ttcccccttc agatgtttgtg gaggtcggtg tcagccctcc ttatgtcttc cttcctgtgg 240
 tcaagagcca gctgcgcca gagttccatg ttgctgctca gaactgctgg gtgaagaagg 300
 gaggtgcttt cactggtgaa 320

<210> 67
 <211> 207
 <212> nucleic acid
 <213> Zea mays

 <400> 67

 gcacgagctg gagcaacgta gttgctgcct atgaaccagt ttgggctatt ggaactggta 60
 aagttgccac ccagctcag gctcaggaag tgcacgcctc cctgagggat tggctaaaga 120
 ccaatgccag cctgaggtt gctgaatcta ctaggatcat ctacggaggc tctgtaactg 180
 ctgcgaactg caaagagcta gcagcac 207

<210> 68
 <211> 265
 <212> nucleic acid
 <213> Zea mays

 <400> 68

 aatcgacacc cggccgagat gggcgcaagt tcttcgttgg tggcaactgg aaatgcaatg 60
 gaaccgcaga tcaggttgag aagattgtca aaaccctgaa tgaaggaaat gttccctctt 120
 cagatgttgt tgaggttggt gtcagtcctc cttatgtttt cctcccgggtg gtcaagagcc 180
 agctgcgcca agagttccaa gttgctgctc agaactgctg ggtgaagaag ggaggtgcat 240
 tcaactggtga aattagtgt gagat 265

<210> 69
 <211> 319
 <212> nucleic acid
 <213> Zea mays

<400> 69

cggaacgctg ggtagaagca cccctctccc tctctctctc ttgcgcgtcc gaagctccgc 60
 accccaatct aatcgacacc tcaccgagat gggccgcaag ttactcgtcg gtggcaactg 120
 gaaatgcaat ggaaccacag atcaggctga gaagattgtc aaaaccctga atgaaggaca 180
 ggttccccct tcagatgttg tggaggctgt tgtcagccct ccttatgtct tccttcctgt 240
 ggtcaagagc cagctgcgcc aagagttcca tgttgtctgt cagaactgct ggggtgaagaa 300
 gggagggtgt ttcactggt 319

<210> 70
 <211> 316
 <212> nucleic acid
 <213> Zea mays

<400> 70

atccaatcta gaagctcccc tctccctccc tccctctctc tctctctctt cgccgtccga 60
 agctccgcac ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcgggtg 120
 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgctg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtggt caagagccag ctgcgccaaag agttccatgt tgtgtctcag aactgctggg 300
 tgaagaaggg aggtgc 316

<210> 71
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 71

ctctcttcgc cgtccgaagc tccgcacca atctaataca cacctcaccc agatgggccc 60
 caagttcttc gtcggtggca actggaaatg caatggaacc acagatcagg tcgagaagat 120
 tgtcaaaaacc ctgaatgaag gacaggttcc cccttcagat gttgtcgagg tcgttgctcag 180
 ccctccttat gtcttccttc ctgtgggtcaa gagccagctg cgccaagagt tccatgttgc 240

tgctcagaac tgctgggtga agaagggagg tgcttt

276

<210> 72
<211> 204
<212> nucleic acid
<213> Zea mays

<400> 72

gaagatcaag gactggagca acgtattgtt gcctatgaac cagtttgggc tattggaact 60

ggtaaagttg ccacccacgc tcaggctcag gaagtgcacg cctccctgag ggattggcta 120

aagaccaatg ccagccctga ggttgctgaa tctactagga tcatctacgg aggctctgta 180

actgctgcga actgcaaaga gcta 204

<210> 73
<211> 342
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (91)
<223>

<400> 73

ctagaagccc cctctccctc cctccctctc tctctctctc ttgcgcgtcc gaagctccgc 60

acccaatcta atccacacct cagccagatg ngccgcaagt tcttcgctcg tggcaactgg 120

aaatgcaatg gaaccacaga tcaggctcag aagattgtca gaaccctgaa tgaaggacag 180

gttccccctt cagatgttgt cgaggctcgt gtcagccctc cttatgtctt ccttcctgtg 240

gtcaagagcc agctgcgcca agagttccat gttgctgctc agaactgctg ggtgaagaat 300

ggaggtgctt tcaactggtga agcagtgctg agatgctcgt ca 342

<210> 74
<211> 313
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (308)
<223>

<400> 74

aatctagaag ctccctctct cctccctccc tctctctctc tctcttccgc gtccgaagct 60
ccgcacccaa tctaatacgac acctcaccga gatgggccgc aagttcttcg tcggtggcaa 120
ctggaaatgc aatggaacca cagatcaggt cgagaagatt gtcaaaaccc tgaatgaagg 180
acaggttccc ccttcagatg ttgtcgaggt cgttgtcagc cctccttatg tcttccttcc 240
tgtgggtcaag agccagctgc gccaaagagt ccatgttgct gctcagaact gctgggtgaa 300
gaagggangt gct 313

<210> 75

<211> 277

<212> nucleic acid

<213> Zea mays

<400> 75

atttagaagc gcccctctct ctctccccc tccgtaccca atctaatacg caccggccg 60
agatgggccg caagttcttc gttggtggca actggaaatg caatggaacc gcagatcagg 120
ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180
ttgttgtcag tctccttat gtgttctctc cgggtgtcaa gagccagctg cgccaagagt 240
tccaagttgc tgctcagaac tgctgggtga agaaggg 277

<210> 76

<211> 282

<212> nucleic acid

<213> Zea mays

<400> 76

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ttgagaagat tgtcaaaacc ctgattgaag gaaatgttcc ctctacagat gttgttgagg 180
tcgttgtcag tctccttat gtgttctctc cgggtgtcaa gagccagctg cgccaagagt 240
tccaagttgc tgctcagaac tgctgggtga agaagggagg tg 282

<210> 77

<211> 313

<212> nucleic acid
<213> Zea mays

<400> 77

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aggttgagaa gattgtcaaa accctgaatg aaggaaatgt tccctcttca gatgttggtg 180
aggttgttgt cagtcctcct tatgtgttcc tcccgggtgt caagagccag ctgcgccaag 240
agttccaagt tgctgctcag aactgctggg tgaagaaggg aggtgcatta cactggtgaa 300
attagtgtg aga 313

<210> 78
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 78

ccaatctaga agtccccctc ttcgctccctc cctctctctc tctctcttcg ccgtccgaag 60
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aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgtcaaaac cctgaatgaa 180
ggacaggttc ccccttcaga tggtgtcgag gtcgttgtca gccctcctta tgtcttcctt 240
cctgtggtca agagccagct gcgccaagag ttccatgttg ctgctcagaa ctgctgggtg 300
aagaagg 307

<210> 79
<211> 299
<212> nucleic acid
<213> Zea mays

<400> 79

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atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
tcccccttca gatgttggtg aggtcggtgt cagccctcct tatgtcttcc ttctgtggt 240
caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg tgaagaagg 299

<210> 83
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 83

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 aaatgttccc tcttcagatg ttgttgaggt cgttgtcagt cctccttatg tgttcctccc 180
 ggtggtcaag agccagctgc gccaaagagt ccaagttgct gctcagaact gctgggtgaa 240
 gaagggaggt gcatcaactgg tgaaattatg ctgaatgctc gtcaac 286

<210> 84
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 84

ctatctagaa gctccctctc cctccctcc ctctctctct ctctcttcgc cgtccgaagc 60
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 actggaaatg caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag 180
 gacagggttc ccttcagat gttgtcgagg tcgttgtcag cctccttat gtcttccttc 240
 ctgtggtcaa gagccagctg cgccaagagt tccatgttgc tgctcagaac tg 292

<210> 85
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 85

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 atggaaccac agatcaggtc gagaagattg tcaaaaccct gaatgaagga caggttcccc 180
 cttcagatgt tgtggaggtc gttgtcagcc ctccttatgt cttccttcct gtggtcaaga 240
 gccagctgcg ccaagagttc catgttgctg ctcagaa 277

1. The first step is to identify the problem. This involves understanding the current situation and what needs to be changed.

gtccctct	ccctccctcc	ctctctctct	ctctcttcgc	cgccgaagc	tccgcacca	60
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caatggaacc	acagatcagg	tgcagaagat	tgtcaaaacc	ctgaatgaag	gacaggttcc	180
cccttcagat	gttggtgagg	tgttggtcag	ccctccttat	gtcttccttc	ctgtgggtcaa	240
gagccagctg	cgccaagagt	tccatgttgc	tgtcagaac	tgtgggtga	agaagga	298

<400> 87

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ttgagaagat	tgtcaaaacc	ctgaatgaag	gaaatgttcc	ctcttcagat	gttgttgagg	180
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<210>	88
<211>	301
<212>	nucleic acid
<213>	Zea mays

```
<220>
<221>      unsure
<222>      (137)
<223>
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<400> 88

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gtcgggtggca actggnatg caatggaacc acagatcagg tcgagaagat tgtcaaaacc 180
 ctgaatgaag gacagggtcc ccccttcagat gttgtcgagg tcgttgtcag cactccttat 240
 gtcttccttc ctgtgggtcaa gagccagctg cgccaagagt tccatgttgc tgctcagaac 300
 t 301

<210> 89
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 89

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 tctctcttcg ccgtccgaag ctccgcaccc aatctaatac acacctcacc gagatggggc 120
 gcaagttctt cgtcgggtggc aactggaaat gcaatggaac cacagatcag gtcgagaaga 180
 ttgtcaaaac cctgaatgaa ggacagggtc ccccttcaga tgttgtcgag gtcgttgtca 240
 gccctcctta tgtcttcctt cctgtgggtca agagccagct gcgccaagag ttccatgttg 300
 ctgctca 307

<210> 90
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 90

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 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgtcg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtgggt caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg 300
 tgaagaaggg 310

<210> 91
 <211> 258
 <212> nucleic acid
 <213> Zea mays

<400> 91
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 cgagatgggc cgcaagttct tcgttgggtg caactggaaa tgcaatggaa ccgcagatca 120
 gggtgagaag attgtcaaaa ccctgaatga aggaaatggt ccctcttcag atgttgttga 180
 cggtgttgtc agtcctcctt atgtgttcct cccgggtggc aagagccagc tgcgccaaga 240
 gttccaagtt gctgctca 258

<210> 92
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<400> 92
 atctagaagc acccctctcc ctctctctct ctccgctgc cgaagctccg caccccaatc 60
 taatcgacac ctcaccgaga tgggcccga gttcttcgtc ggtggcaact ggaaatgcaa 120
 tggaaccaca gatcaggctg agaagattgt caaaaccctg aatgaaggac aggttcccc 180
 ttcagatggt gtggaggctg ttgtcagccc tccttatgtc ttccttcctg tggtaagag 240
 ccagctgcgc caagagttcc atgttgcgtc tcagaactgc tgggtgaaga aggg 294

<210> 93
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 93
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 tctaactgac acctcaccga gatgggcccg aagttcttcg tcggtggcaa ctggaaatgc 120
 aatggaacca cagatcaggt cgagaagatt gtcaaaaccc tgaatgaagg acaggttccc 180
 ccttcagatg ttgtcgaggt cgttgtcagc cctccttatg tcttccttcc tgtggtcaag 240
 agccagctgc gccaaagagtt ccatgttgc g 271

<210> 94
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 94
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 gttgaggttg ttgtcagtcc tccttatgtg ttctcccg tggtcaagag ccagctgcgc 180
 caagagttcc aagttgctgc tcagaactgc tgggtgaaga agggatgtgc attcactggt 240
 gaaattagtg ctgagatgct cgtcaacctt ggcg 274

<210> 95
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 95
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 aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgtcaaaac cctgaatgaa 180
 ggacaggttc ccccttcaga tgttgctgag gtcgttgta gccctcctta tgtcttcctt 240
 cctgtggtca agagccagct gcgccaagag ttccatgttg ctgctcagaa ctgctgggtg 300
 aagaag 306

<210> 96
 <211> 280
 <212> nucleic acid
 <213> Zea mays

<400> 96
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 aggtcggttg cagccctcct tatgtcttcc ttctgtggt caagagccag ctgcgccaag 240
 agttccatgt tgctgctcag aactgctggg tgaagaaggg 280

<210> 97
 <211> 280
 <212> nucleic acid

<213> Zea mays

<400> 97

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caatggaacc acagatcagg tcgagaagat tgtcaaaaacc ctgaatgaag gacaggttcc 180
cccttcagat gttgtggagg tcgttgtcag cctccttat gtcttccttc ctgtggtcaa 240
gagccagctg cgccaagagt tccatgttgc ggctcagaac 280

<210> 98

<211> 276

<212> nucleic acid

<213> Zea mays

<400> 98

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acccaatatc aatcgacacc tcgccgagat gggccgcaag ttcttcgtcg gtggcaactg 120
gaaatgcaat ggaaccacag atcaggtcga gaagattgtc aaaaccctga atgaaggaca 180
ggttccccct tcagatgttg tggaggtcgt tgtcagccct ccttatgtct tccttcctgt 240
ggtcaagagc cagctgcgcc aagagttcca tgttgc 276

<210> 99

<211> 300

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (174)

<223>

<400> 99

gcgaaatcca atctagaagc tccctctccc ctcctccct ctctctctct ctcttcgccg 60
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cggtggcaac tggaaatgca atggaaccac agatcaggtc gagaagattg tcanaaccct 180
gaatgaagga caggttcccc cttcagatgt tgtcagagtc gttgtcagcc ctccttatgt 240
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<210> 100
 <211> 316
 <212> nucleic acid
 <213> Zea mays

<400> 100

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 gaagatgttc caacccttca ccctgttgcg gtgatgtgct gaagacagat cagactattt 240
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 ttccctcccc ctagct 316

<210> 101
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 101

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 tttccctccc ccctagcttt ttgtg 325

<210> 102
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 102

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 aatggaacca cagatcaggt cgagaagatt gtcaaaaacc tgaatgaagg acaggttccc 180

ccttcagatg ttgtggaggt cgttgtcagc cctccttatg tcttccttcc tgtgggtcaag 240
agccagctgc gcccaagagtt ccatgttgct gcc 273

<210> 103
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 103

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caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacagggttcc 180
cccttcagat gttgtggagg tcgttgtcag cctccttatg gtcttccttc ctgtgggtcaa 240
gagccagctg cgccaagagt tccatgttgc tgctcagaac t 281

<210> 104
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 104

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aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgcctaaac cctgaatgaa 180
ggacagggttc ccccttcaga tgttgttgag gtcgttgtca gccctcctta tgtcttcctt 240
cctgtgggtca agagccagct gcgccaagag ttccatgttc tgctcagaac tgctggg 297

<210> 105
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 105

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ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180

ttgttgtcag tcttccttat gtgttcctcc cgggtgtcaa gagctagctg cgccaagagt 240
tccagttgct gctcagaact gctgggtgag aagggagt 278

<210> 106
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 106

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caccccaatc taatcgacac ctcaccgaga tgggccgcaa gttcttcgtc ggtggcaact 120
ggaaatgcaa tggaaccaca gatcaggctc ataagattgt caaaaccctg aatgaaggac 180
aggttcccc ttcagatggt gtggaggctc ttgtca 216

<210> 107
<211> 188
<212> nucleic acid
<213> Zea mays

<400> 107

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tgaggttgct gaatctacta ggatcattta cggaggctct gtaactgccg cgaactgcaa 180
agagctag 188

<210> 108
<211> 204
<212> nucleic acid
<213> Zea mays

<400> 108

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cgcaccccaa tctaategac acctcgccga gatgggccgc aagttcttcg tcggtggcaa 120
ctggaaatgc aatggaacca cagatcaggc cgagaagatt gtcaaaaccc tgaatgaagg 180
acaggttccc ccttcagatg ttgt 204

<210> 109
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 109

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 gaaatgcaat ggaaccacag atcagggtcg gaagattgtc aaaaccctga atgaaggaca 180
 gggtcccccct tcagatgttg tggaggtcgt tgtcagccct ccttatgtct tccttcctgt 240
 ggtcaagagc cagctgcgcc aagagttcca tgttgccg 278

<210> 110
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 110

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 taatcgacac ctcaccgaga tgggcccga gttcttcgtc ggtggcaact ggaaatgcaa 120
 tggaaccaca gatcagggtcg agaagattgt caaaaccctg aatgaaggac aggttcccc 180
 ttcagatgtt gtggaggtcg ttgtcagccc tccttatgtc ttcttcctg tggtaagag 240
 ccagctgcgc caagagttcc atgtt 265

<210> 111
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 111

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 aactggaaat gcaatggaac cacagatcag gtcgagaaga ttgtcaaaac cctgaatgaa 180
 ggacaggttc ccccttcaga tgttggtcag gtcgttgtca gccctcctta tgtcttcctt 240
 cctgttgtca agagccagct gcgccaagag 270

<210> 112
 <211> 259
 <212> nucleic acid
 <213> Zea mays

<400> 112

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 caatggaacc acagatcagg tcgagaagat tgtcaaaacc ctgaatgaag gacaggttcc 180
 cccttcagat gttgtggagg tcgttgtcag ccctccttat gtcttccttc ctgtggtcaa 240
 gagccagctg cgccaagag 259

<210> 113
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<400> 113

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 tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa cctgaatga aggacaggtt 180
 ccccttcag atgttgtgga ggtcgttgtc agccctcctt atgtcttctt tctgtgtggtc 240
 aagagccagc tgcgccaaga gttccatgtt gctgctcaga actgctgggt gaag 294

<210> 114
 <211> 237
 <212> nucleic acid
 <213> Zea mays

<400> 114

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 tcaggttgag aagattgtca aaacctgaa tgaaggaaat gttccctctt cagatgttgt 180
 tgaggttggt gtcagtcctc cttatgtgtt cctcccgggt gtcaagagcc agctgcg 237

<210> 115
 <211> 203

<212> nucleic acid
 <213> Zea mays

<400> 115

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 atctaatacga cacctcacccg agatggggccg caagttcttc gtcggtggca actggaaatg 120
 caatggaacc acagatcagg tcgagaagat tgtcaaaaacc ctgaatgaag gacagggttcc 180
 cccttcagat gttgtggagg tcg 203

<210> 116
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 116

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 caatctaatac gacacctcgc cgagatgggc cgcaagttct tcgtcgttg caactggaaa 120
 tgcaatggaa ccacagatca ggtcgagaag attgtcaaaa ccctgaatga aggacagggtt 180
 ccccttcag atgttgtgga ggtcgttgtc agccctcctt atgtcttcct tcctgtggtc 240
 aagagccagc tgcgc 255

<210> 117
 <211> 209
 <212> nucleic acid
 <213> Zea mays

<400> 117

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 aaacctgaa tgaaggacag gttccccctt cagatgttgt ggaggtcgtt gtcagccctc 180
 cttatgtctt ccttcctgtg gtcaagagc 209

<210> 118
 <211> 216
 <212> nucleic acid
 <213> Zea mays

<400> 118

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ctctcttcgc cgtccgaagc tccgcacccc aatctaatacg acacctcacc gagatggggc 60
gcaagttctt cgtcgggtggc aactggaaat gcaatggaac cacagatcag gtcgagaaga 120
ttgtcaaaac cctgaatgaa ggacaggttc ccccttcaga tgttgtggag gtcgttgtca 180
gccctcctta tgtcttcctt cctgtggtca agagcc 216

<210> 119
<211> 160
<212> nucleic acid
<213> Zea mays

<400> 119

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tttgggctat tggaaactggc aaagttgcc cccagctca ggctcaggaa gtgcacgcct 120
ccctgagggg ttggctaaag accaatgcc gccctgaggt 160

<210> 120
<211> 296
<212> nucleic acid
<213> Zea mays

<400> 120

gtatttagaa gcgccccctc tcctctcccc catccgtacc caatctaatac gacacccggc 60
cgagatgggc cgcaagttct tcgttggtgg caactggaaa tgcaatggaa ccgcagatca 120
ggttgagaag attgtcaaaa ccctgaatga aggaaatgtt cccctcttcag atgttggtga 180
ggtcgttgtc agtcctcctt atgtgttcct cccggtggtc aagagccagc tgcgccaaga 240
gttccaagtt gctgctcaga actgctgggt gaagaaggga ggtgcattca ctggtg 296

<210> 121
<211> 238
<212> nucleic acid
<213> Zea mays

<400> 121

caatctagaa gcacccctct cctctctctt ctcttcgcgc tccgaagctc cgcaccccaa 60
tctaatacag acctcaccga gatggggcgc aagttcttcg tcggtggcaa ctggaaatgc 120
aatggaacca cagatcaggt cgagaagatt gtcaaaaacc tgaatgaagg acaggttccc 180

ccttcagatg ttgtggaggt cgttgtcagc cctccttatg tcttccttcc tgtgggtca 238

<210> 122
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 122

catcaaatga atttgttggg gacaagactg cgtatgccct gtctcagggg ctaaagggtca 60
ttgcatgtgt tgggtgagacc cttgagcaga gtgaggctgg gtctaccatg gatgttgttg 120
ctgcacaaac aaaagcaatt gctgagaaga tcaaggactg gagcaacgta gttgttgcct 180
atgaaccagt ttgggctatt ggaactggta aagttgccac cccagctcag ctcaggaagt 240
gcacgcctac ctgaggggatt ggctaaagac caatgccagc cctgaggatg ctgaatctac 300
tag 303

<210> 123
<211> 242
<212> nucleic acid
<213> Zea mays

<400> 123

caatttagaa gcgccccctc tctctcccc catccgtacc caatctaate gacacccggc 60
cgagatgggc cgcaagttct tcgttgggtg caactggaaa tgcaatggaa ccgcagatca 120
ggttgagaag attgtcaaaa ccttgaaatga cggaaatggt cctctttcag atgttgttga 180
ggtcgttgtc agtcctcctt atgtgttctt cccggtgggc aagagccagt gcgccaagag 240
tt 242

<210> 124
<211> 327
<212> nucleic acid
<213> Zea mays

<400> 124

cacaaacctc accccacctc tattatcccc tgccccctgt ctttcttctt ccacaagcag 60
cgaaatccaa tctagaagct cccctctccc tccctccctc tctctctctc tcttcgccgt 120
ccgaagctcc gcacccaatc taatogacac ctcaccgaga tgggcccga gttcttctgc 180

gggtggcaact ggaaatgcaa tggaaccaca gatcagggtcg agaagattgt caaaaccctg 240
aatgaaggac aggttcccc ttcagatggt gtcgagggtcg ttgtcagccc tccttatgtc 300
ttccttctctg tgggtcaagag ccagctg 327

<210> 125
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 125

catccaatct agaagcaccc ctctccctct ctctctcttc gccgtccgaa gtcgccgacc 60
ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttggtcgggtg gcaactggaa 120
atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
tcccccttca gatgttgtgg aggtcgttgt cagccctcct tatgtattcc ttctgtggt 240
caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg tgaagaa 297

<210> 126
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 126

ctaaagacca atgccatccc tgaggctgct gaatctgcta ggatcatcta cggaggctct 60
gtaactgctg cgaactgcaa agagctagca gtacagcctg acgtcgatgg ttgtcttgcc 120
gactgagctt ctttgaagcc tgagttcatc gacatcatca acgcggccac cgtgaagtcc 180
gcttaagatg ctacgctgaa gactgaacat acttcttttt getcaactgt gctatgtaag 240
ctagtagctt ttg 253

<210> 127
<211> 171
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (8)
<223>

gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
aaggacaggt tcccccttca gatgttgctg ag 212

<210> 131
<211> 151
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (45)
<223>

<400> 131

cagcagctgc gccaaagagtt ccatgttgct gctcagaact gctgngtgaa gaagggaggt 60
gctttcactg gtgaagtcag tgctgagatg ctcgtcaacc ttggtgttcc ctgggtcatt 120
cttggaact ctgaaaggag agctctgctg g 151

<210> 132
<211> 279
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (215), (225), (235), (245)
<223> unsure at all n locations

<400> 132

ccaatctaga agtccccctc tccctccctc cctctctctc tctctcttctg ccgtccgaag 60
ctccgcaccc aatctaactg acacctcacc gagatgggcc gcaagttctt cgtcggtggc 120
aactggaaat gcaatggaac cacagatcag gtcgagaaga ttggcaaaac cctgaacgaa 180
ggacaggggc ccccgctcaga agtcgctcag ggcgntggca gccncccta aggcnttcct 240
cccngggaca agagccagca tcgccaagag ttccatgtt 279

<210> 133
<211> 128
<212> nucleic acid
<213> Zea mays

<400> 133

aatctagaag caccctcttc cctctctctc tcttcgctgt ccgaagctcc gcacccaat 60
 ctaatcgaca cctcaccgag atgggcccga agttcttctgt cgggtggcaac tggaaatgca 120
 atggaacc 128

<210> 134
 <211> 150
 <212> nucleic acid
 <213> Zea mays

<400> 134

cagcgaaatc caatctagaa gcacccctct cctctctctc ctcttcgccc tccgaagctc 60
 cgcacccaat ctaatcgaca cctcaccgag atgggcccga agttcttctgt cgggtggcaac 120
 tggaaatgca atggaaccac agatcaggtc 150

<210> 135
 <211> 323
 <212> nucleic acid
 <213> Zea mays

<400> 135

ggaactcggg gaggtgagca gaggtggtgg tgagtccgcc tttcgttttt ctgcagcagg 60
 tcaagggggt gctgcggctg gacttcgccc tcgcagcgca gaactgctgg gtgcgcaagg 120
 gcggcgccct caccggcgag atcagtgtgt agatgtgtgt aaacctgcag gtgcctgggt 180
 cattttggga cattctgagc gcagagctct gttgggtgaa tccagtgtgt ttgttgctga 240
 taaagttgca tatgcactca ctcaaggtct caaggtaatt gcttgcatgt gtgagaccct 300
 tgagcagaga gaggcaggaa caa 323

<210> 136
 <211> 214
 <212> nucleic acid
 <213> Zea mays

<400> 136

gtggtgagtc cgcctttctgt ttttctgcag cagggtcaagg ggctgctgcg gctggacttc 60
 gccgtgcgag cgcagaactg ctgggtgcgc aagggcgggc ccttcaccgg cgagatcagt 120
 gctgagatgc tggtaaacct gcaggtgccc tgggtcattt tgggacattc tgagcgcaga 180

gctctgttgg gtgaatccag tgattttgtt gctg 214

<210> 137
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 137

cacgaattca ccaaccaaac tccactgtct ccaactctcc atcgcgctct ctacgcctct 60
 cctgcaggac gaccaatggc ttccaggaag ttcttcgtgg gtggcaactg gaaatgcaac 120
 ggtactggcg aggacgtgaa gaagatcgtc accgtgctca acgaagccga ggtgccctct 180
 gaagacgtcg tcgaggtggg ggtgagtccg ccgttcgttt ttctgcagca ggtcaagggg 240
 ctgctgcggc tggacttcgc cgtcgca 267

<210> 138
 <211> 191
 <212> nucleic acid
 <213> Zea mays

<400> 138

ggaactcggg gaggtgagca gaggtgggtg tgagtccgcc ttctgttttt ctgcagcagg 60
 tcaaggggct gctgcggctg gacttcgccg tcgcagcgca gaactgctgg gtgcgcaagg 120
 gcggcgccct caccggcgag atcagtgtct agatgctggg aaacctgcag gtgccctgag 180
 tcattttggg a 191

<210> 139
 <211> 322
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (9), (77), (104), (186), (222) ... (223), (273), (286)
 <223> unsure at all n locations

<400> 139

tcacaacana ctccactgtc tccaactctc catcgcgctct gctacgcctc tcttgcattga 60
 cgaccaatgg cttccangaa gttcttcgtg ggtggcaact gganatgcaa cggtactggc 120
 gaggacgtga agaagatcgt caccgtgctc aacgaagccg aggtgccctc tgaagacgtc 180

gtcgaagtgg tggtagtcc gccgttcgtt tttctgcagc anngtcaagg gctgctgcgg 240
ctagacttcg ccgtcgcagc gcagaactgc tgngtgcgca agggcngcgc cttcaccggc 300
gagatcagtg ctgagatgct gg 322

<210> 140
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 140

caccaaccaa actccactgt ctccaactct ccatcgcgtc tgctacgcct ctctgcagg 60
acgaccaatg gcttccagga agttcttcgt gggtaggcaac tggaaatgca acggtactgg 120
cgaggacgtg aagaagatcg tcaccgtgct caaccaagcc gaggtgccct ctgaagacgt 180
cgtcgaggtg gtggtgagtc cgcctttcgt tttctgcag caggtcaagg ggctgctgcg 240

<210> 141
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 141

acaaaactcc actgtctcca actctccatc gcgtctgcta cgcctctcct gcaggacgac 60
caatggcttc caggaagttc ctctggtggg gcaactggaa atgcaacggg actggcgagg 120
acgtgaagaa gatcgtcacc gtgctcaacc aagccgaggt gccctctgaa gacgtcgtcg 180
aggtaggtgg gagtccgct ttcgtttttc tgcagcaggt caaagggctg ctgcggctgg 240
acttcgccgt cgcagcgcag aactgctggg tgcgcaagga ggcg 284

<210> 142
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 142

cacgaattca ccaaccaaac tccactgtct ccaactctcc atcgcgtctg ctacgcctgt 60
cctgcaggac gaccaatggc ttccaggaag ttcttcgtgg gtggcaactg gaaatgcaac 120
ggtagtggcg aggacgtgaa gaagatcgtc accgtgctca accaag 166

<210> 143
 <211> 322
 <212> nucleic acid
 <213> Zea mays

 <400> 143

 gcctcctctc ccgttccccc accaaccgca gcagcgagag cgagactgag aatggccgcg 60
 gcgcgctcgt cctcgtgtc ctcccatctc tctcgctcgc ccgacctccg ccgcgcggcg 120
 cgccggccac tcccaccgtc ccacagcagc ttgcgctcgc ctgctcgcac cgccgcgccc 180
 agcgctcgtc cgccatggct ggatccggca agttcttcgt cggaggcaac tggaaagtga 240
 acgtaacaaa ggactccggt agcaagcttg tctctgaact gaatgctgct accctcgaaa 300
 ctgatgtaga tgttgtggtg gc 322

<210> 144
 <211> 303
 <212> nucleic acid
 <213> Zea mays

 <400> 144

 cctcgccctc gccgcctcct ctcccgttcc cccaccaacc gcagcagcga gagcgagact 60
 gagaatggcc ggggcgcgct cgctccctcgt gtccctccat ctctctcgcc tcgccgacct 120
 ccgcgcgcgc cgggcgcggc cactcccacc gtcccacagc agcttcgcgt cggtgctcgc 180
 ctccgcgcgc cccagcgcgt cgctcgccatg gctggatccg gcaagttctt cgctcgaggc 240
 aactggaagt gcaacggaac aaaggactcc gtttagcaagc ttgtctctga actgaatgct 300
 gct 303

<210> 145
 <211> 270
 <212> nucleic acid
 <213> Zea mays

 <400> 145

 ctgcgcgcct gctcctctcc agttctcccc caccaaccgc agcagcgaga gcgagactga 60
 gaatggcgcg ggcgcgcgtc tccctcgtgt cctcccatct ctcccgcctc gccgacctcc 120
 gccgcgctgc ggcgcgggcc actcccaccg tcccacagca gcttcgcgtc ggcttctcgc 180

669370-037420

gccgccgcgc ccagcgcgtc gtcgccatgg ctggatccgg caagttcttc gtcggaggca 240
actggaagtg caacggaaca aaggactccg 270

<210> 146
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 146

ccgacgcgtg ggcgccgcct gtcctctctc agttctcccc caccaaccgc agcagcgaga 60
cgagactgag aatggccgcg gcgccgtcgt ccctcgccac ctcccatctc tcccgcctcg 120
ccgacctccg ccgcgcggcg cgccggccac tcccaccgtc ccacagcagc ttcgcgtcgg 180
cttctcgcgc cgccgcgccc agcgcgtcgt cgccatggct ggatccggca agttcttcgt 240
cggaggcaac tggaagtgca acgtaacaaa ggactccggt agcaagcttg tctctgaact 300
g 301

<210> 147
<211> 282
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (149)
<223>

<400> 147

cccacgcgtc cgcgccgcct gtcctctctc agttctcccc caccaaccgc agcagcgaga 60
gcgagactga gaatggccgc ggcgccgtcg tccctcgtgt cctcccatct ctcccgcctc 120
gccgacctcc gccgcgcggc ggcgccggnc cactcccacc gtcccacagc agcttcgcgt 180
cggcttctcg cgccgcgcg cccagcgcgt cgtcgccatg gctggatccg gcaagttctt 240
cgtcggaggc aactggaagt gcaacgcaac aaaggactcc gt 282

<210> 148
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 148
 tcgccctcgc cgccctgctcc tctccagttc tccccaccca accgcagcag cgagagcgag 60
 actgagaatg gccgcggcgc cgtcgtccct cgtgtcctcc catctctccc gcctcgccga 120
 cctccgcgcg gcggcgcgcc ggccactccc accgtccac agcagcttcg cgtcggcttc 180
 tcgcgcgggc gcgccagcg ggtcgtcgcc atggttgat ccggcaagtt ctctcgtcga 240
 ggcaactgga agtgcaacgc aacaaaggac tcc 273

<210> 149
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 149
 acgaactgct accccctcgc ctgcgccctgc ccgcctgtc ctctccagtt ctccccacc 60
 aaccgcagca gcgagagcga gactgagaat ggccgcggcg ccgtcgtccc tcgtgtcctc 120
 ccatctctcc cgccctgcgc acctccgcgc cgcggcgcg ccgagccact cccaccgtcc 180
 cacagcagct tcgcgtcggc ttctcgcgc gccgcgcca gcgcgtcgtc gccatggctg 240
 gatccggcaa gttcttcgtc ggaggcaact ggaag 275

<210> 150
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 150
 tggacgaact gctacccct cgccctgcgc tcgcgcctg ctctctcca gttctcccc 60
 accaaccgca gcagcgagag cgagactgag aatggcgcg gcgcgctgt cctcgtgtc 120
 ctcccatctc tccgcctcgc ccgacctcg ccgcggcg gcgcgggacc actccacag 180
 tccacagca gcttcgcgtc ggcttctcgc gccgcgcgc ccagcgcgtc gtcgccatgg 240
 ctggatccgg caagttcttc gtcggaggca actggaagtg cgtaagtga tgttctgctt 300

<210> 151
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 151
acgaactgct accccctcgc ctgcacctcg ccgctgctc ctctccagtt ctccccacc 60
aaccgcagca gcgagagcga ggactgagaa tggccgcggc gccgtcgtcc ctcggtgcct 120
cccatctctc ccgctcgcgc gacctccgcc gcgcggcggc gccggccact cccaccgtcc 180
cacagcagct tcgcgtcggc ttctcgcgcc gccgcgccca gcggtcgtcg ccatggctgg 240
atccggcaag ttctt 255

<210> 152
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 152
cgaaccttgg cgtctgccct accaaccgca gcagcgacac tagaatggcc gcggcgccgt 60
catccctcgc gtctctccac ctctcccaa tcgcggcggt gtccactccc gccgtccac 120
atcagcttcg catcggtcgc tcccgccgcc gcgccagcg catcgttgcc atggctggat 180
ccggcaagtt ctctcgtcga ggcaactgga agtgcaatgg aacaaaggac tccattagca 240
aacttgtctc tgaattgaat gctgctaccc ttgaaactga tgt 283

<210> 153
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 153
ccgaaccttg gcgtctgcc taccaaccgc agcagcgaca ctagaatggc cgcggcgccg 60
tcacccctcg cgtctccca cctctccca atcgcgcggt tgtccactcc cgcgtccca 120
catcagcttc gcaccggctg ctcccgccgc cgcgccagc gcacgttgcc catggctgga 180
tcgggcaagt tcttcgtcgg aggcaactgg aagtgcaatg gaacaaagga ctccattagc 240
aaacttgtct ctgaattgaa tgctgctacg cctgaaactg at 282

<210> 154
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 154
 cggtctgagc aaccgcagca gcgacactag aatggccgcg gcgccgtcat ccctcgcgtc 60
 ctcccagctc tccccaatcg tcgggggtgtc cactcccgcc gtcccacatc agcttcgcat 120
 cggtctgtcc cgccgccgcg cccggcgcat cgttgccatg gctggatccg gcaagttctt 180
 cgtcggaggg ccctggacgt gcaatggaac aaaggactcc attaacaaac ttgtc 235

<210> 155
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 155
 gctttctagtc cctcgcctac cccgcccccg aacctggcgt ctgccctacc aaccgcagca 60
 gcgacactag aatggccgcg gcgccgtcat ccctcgcgtc ctcccacctc tccccaatcg 120
 cggcggtgtc cactcccgcc gtcccacatc agcttcgcat cgcttgctcc cgccgccgcg 180
 ccggggcgcat cgttgccatg gctggatccg gcaagttctt cgtcggaggg aactggaagt 240
 gcaatggaac aaaggctcca ttagcaaact tgt 273

<210> 156
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 156
 cagagagagg caggaacaac aatggatggt gttgctgcac aaacaaaggc tattgctgaa 60
 aaaatatcag attggacaaa tattgtgttg gcatatgaac cagtttgggc tattggtacc 120
 ggcaaagttg caactcctgc tcaggctcag gaggttcatg atggtctgag aaagtggctc 180
 cactccaatg ttagccctgc agttgctgaa ttgacaagga taatttatgg agggctctgta 240
 aatggagcta actgcaaaga acttgagct caaccagatg ttgatggatt ccttggttgg 300
 ggagc 305

<210> 157
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 157
cattggacaa atattgtggt ggcatatgaa ccagtttggg ctattggtac cggcaaagtt 60
gcaactcctg ctcaggctca ggagggtcat gatggtctga gaaagtggct ccaactccaat 120
gttagccctg cagttgctga attgacaagg ataatttatg gagggctctgt aaatggagct 180
aactgcaaag aacttgcagc tcaaccagat gttgatggat tccttgttgg tggagcctca 240
ttgaagcctg aattcgtgga catcatcaag tctgccactg tcaagtcttc 290

<210> 158
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 158
aaacttttga agtatgtttt gagcagatga aggcttttgc agatagtatt tcaaactggg 60
ccgatgttgt gattgcatat gagcctgttt gggctatttg aaccggaaaa gttgctactc 120
ctgagcaagc ccaggaagtt catgctgctg tacgcgattg gttgacgacc aacatatcac 180
ctgatgttgc ctctagcacc cgaataatct atggagggtc tgtgaatgca gccaaactgtg 240
cagagctagc aaagaaagag gatatcgatg gttttcttgt tgggtggtgcc tccttgaagg 300
ccccggact 309

<210> 159
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 159
gtgattgcat atgagcctgt ttgggctatt ggaaccggaa aagttgctac tcctgagcaa 60
gcccaggaag ttcatgctgc tgtacgcgat tggttgacga ccaacatata acctgatgtt 120
gcctctagca cccgaataat ctatggagggt tctgtgaatg cagccaactg tgcagagcta 180
gcaaagaaag aggatatcga tggttttctt gttggtggtg cctccttgaa ggccccggac 240
ttcgccacca ttatcaactc agtgaccgcc aagaaagttg 280

<210> 160
<211> 295
<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (263)

<223>

<400> 160

cagttaaggt tatctgccgt gcatagcgag agcgttcttg aagagtaggg atgcagggat 60

aacttttgaa gtatgttttg agcagatgaa ggcttggtgca gatagtattt caaactgggc 120

cgatgttggtg attgcatatg agcctgtttg ggctattgga accggataag ttgctactcc 180

tgagcaagcc caggaagttc atgctgctgt acgcgattgg ttgacgacca acatatcacc 240

tgatgttgcc tctagcaatt ttntaatcta tggaggttct gtgaatgcag ccaac 295

<210> 161

<211> 242

<212> nucleic acid

<213> Zea mays

<400> 161

agagagggaa gcaggcaaaa cttttgatgt atgttttagg cagatgaagg cttttgcaga 60

tagtatttca aactgggcag atgttgtaat tgcatacgag cctgtttggg cgattggaac 120

cggaaaagtt gctactcctg agcaagccca ggaagttcat gctgctgtac gcaattggct 180

gaagaccaac atatcacccg atgttgccctc tagcactcga ataatctatg gaggttctgt 240

ga 242

<210> 162

<211> 237

<212> nucleic acid

<213> Zea mays

<400> 162

cggaaaagtt gctactcctg agcaagccca ggaagttcat gctgctgtac gcgattgggt 60

gacgaccaac atatcacctg atgttgccctc tagcacccga ataatctatg gaggttctgt 120

gaatgcagcc aactgtgcag agctagcaaa gaaagaggat atcgatgggt ttcttggttg 180

tggtgcctcc ttgaaggccc cggacttcgc caccattatc aactcagtga ccgccaa 237

<210> 163
 <211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 163

 cccacgcgtc cggcctcggt gaaggccccg gacttcgcca ccattatcaa ctcagtgacc 60
 gccaaagaaag ttgcagcctg atggaccacc ctgtgagaaa taagaggcca tcagcgtgtc 120
 gcctcatctg ccacgcctta aagcctgtat aggaggtgat ccgtgtgatg gtgtgcccgt 180
 cacctcctgt ttttgetgat ttgcagcacg gggacagaaa ataatgtttt gctctcgtgg 240
 acctgcactg cacgtgacga ggagagttca gttgtcgtga gcgatgtacg ttggggatat 300
 tgtgatgtgg tcct 314

<210> 164
 <211> 167
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (148), (151)
 <223> unsure at all n locations

 <400> 164

 cggaggttct gtgaatgcag ccaactgtgc agagctagca aagaaagagg atatcgatgg 60
 ttttgttggt ggtggtgcct ccttgaaggc cccggacttc gccaccatta tcaactcagt 120
 gaccgccaag aaagttgcag cctcgtgnga ncacctgtga agaaata 167

<210> 165
 <211> 368
 <212> nucleic acid
 <213> Zea mays

 <400> 165

 ttccggctcga ggaattgaat gctgtaccct tgaaactgat gtagatgttg tgggtggcaca 60
 tccattcatc tatattgatc aggttaagaa ttcactaact ggtcgcattg aggtttctgc 120
 tcagaatgtg tggattggaa aaggaggagc ctacaccgga gagatcagtg cagaacaact 180
 ggtggacatc ggtgttcaat gggttattct tggacactct gagcgtagac atattattgg 240

tgtggattgg aaaaggagga gcctacaccg gagagatcag tgcagaacaa ctggtggaca 120
 tcggttgatca atgggttatt cttggacact cagagcgtag acatattatt ggtgaaaatg 180
 acgagtttat tgggaagaag gctgcatatg cattgagcca aaatg 225

<210> 169
 <211> 328
 <212> nucleic acid
 <213> Zea mays

<400> 169

atacaattta gaagcgcccc tcctcctctc ccccatccgt acccaatcta atcgacaccc 60
 ggccgagatg ggccgcaagt tcttcgttgg tggcaactgg aaatgcctgg aagagcccg 120
 gttctttcttc caatgcgcct gtgcttccag gctccagccc agagcaaata gtaaaagccc 180
 ttcataagtt tcgtgatgca tgttgtctgt aggagcagag gagttcgata tccaactttt 240
 ggagacccat tctcggttgc tgcacgaatt aaccttacgt ttcttgtcat ggagctcggg 300
 gcttgctcaa tctgagcata ggttggag 328

<210> 170
 <211> 228
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (13), (24), (28), (41), (44), (53), (70), (77), (95) ... (96),
 (135) ... (136), (140), (152), (162), (186), (199), (202), (204),
 (211) ... (212), (216), (219), (221) ... (222), (224)
 <223> unsure at all n locations

<400> 170

gaagggaggt gcnccactg aatncatnac catttgagat nctngacaac ctncctggggg 60
 tagggttcan ggctggncgc cctgaaagga gaacnntaat aagaaaataa catgaattcg 120
 ggatccgcag agtcnncgtn tgcggcgggc gngggactaa angtcattgc atgtgttgcc 180
 gagacncttg aacacaacna gntngtggac nncatnctnc nncncggg 228

<210> 171
 <211> 339
 <212> nucleic acid
 <213> Zea mays

gtgcgccatg etc

373

<210> 174
<211> 442
<212> nucleic acid
<213> Zea mays

<400> 174

gggtggagctt ctttgaagcc tgagttcatc gacatcatca acgcggccac cgtgaagggc 60
gctgaagatg ttacgctgaa gacgaacata cttttttttt gctcaactgt gctatgtaag 120
ctagtagctt ttgcgcagga gcagagactg ttttgctgc ccccaacttt tagcttgagc 180
ttgctaataa tgtttacctc tggacgtatc aataatgggtg cttatgtacc ctttttttgt 240
gccgaattac ggtggatccg tcatctgaac catgggtttg gtgtatgtaa ttgcgtcacc 300
cgatgcctaa ggtgagactg aagtttttgg acatttgga caaggtagcc ttgtgccccca 360
cattggtcga atgctgcca aactgtaccg gtcacatctgtg ctccgtacgg attagcctga 420
tctgcgaatg caacttgtca gc 442

<210> 175
<211> 433
<212> nucleic acid
<213> Zea mays

<400> 175

cccacgcgtc cgggatcatt tacggaggct ctgtaactgc cgcgaactgc aaagagctgg 60
cagcacagcc tgatgtcgat gggtttcttg tccgtggagc ttctttgaag cctgagttca 120
tcgacatcat caacgcggcc accgtgaagt ccgcttaaga tgttacgctg aagacgaaca 180
tacttttttt ttgctcaact gtgctatgta agctagtagc ttttgccag gagcagagac 240
tgttttgcct gcccccaact tttagcttga gcttgctaat aatgtttacc tctggacgta 300
tcaataatgg tgcttatgta cccctttttt gtgccgaatt acggtggatc cgtcatctga 360
accatgggtt tgggtgatgt aattgcgtca cccgatgcct atggtgagac tgaagttttt 420
ggacatttgg gac 433

<210> 176
<211> 427

<212> nucleic acid
<213> Zea mays

<400> 176

cgcaccccaa tctaatacgac acctcgccgt gatgggccgc aagttcttcg tcggtggcag 60
ctggaaatgc aatggaacca cagatcaggt cgagaagatt gtcaaaaccc tgaatgaagg 120
acaggttccc ccttcagatg ttgtggaggt cgttgtcagc cctccttatg tcttccttcc 180
tgtggtcaag agccagctgc gccaaagagt ccatgttgcg gtcagaact gctgggttaa 240
gaagggaggt gctttcaccc gtgaagtcag tgctgagatg ctggtcaacc ttggtgttcc 300
ctgggtcatt cttggacact ctgaaaggag agctctgctg ggagaatcaa atgaatttgt 360
tgagagacaag gttgcgtatg cctgtctca gggactaaag gtcattgcat gtgttggtga 420
gacactt 427

<210> 177
<211> 457
<212> nucleic acid
<213> Zea mays

<400> 177

aaggttgcgt atgccctgtc tcagggacta aaggtcattg catgtgttgg tgagacagtt 60
gggcagaggg aggtcgggtc taccatggag gttgttgctg cacaacaaa agcaattgct 120
gagaagatca aggactggag caacgtagtt gttgcctatg aaccagtttg ggctattgga 180
actggtaaag ttgccacccc agctcaggtc caggaagtgc acgccttcct gagggattgg 240
ctaaagacca acgtcagccc tgaggttgct gaatctacta ggatcattta cggaggctct 300
gtaactgccg cgaactgcaa agagctagca gcacagcctg atgtcgatgg gtttcttgct 360
ggtggagctt ctttgaagcc tgagttcatc gacattatca acgcgggtcac cgtgaagtcc 420
gcttaagatg ttacgctgaa gacgaacata cttttttt 457

<210> 178
<211> 471
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (8), (338)

<223> unsure at all n locations

<400> 178

agggtttntc aacgtcacgt cgcacggaca gtacagacta cacggtcag cagcgtccg 60
accacacgtc cgcccacgcg tccggctgcg ccaaaatttc aatgttgcg ctcaaaactg 120
ctgggttaaac aagggagggtc ctttcaactgg tgaactcagt gctgagatgc tegtcaacct 180
tggtgttccc tgcgtcattc ttggacactc tgaaacgaga gctctgctgg gagaatcaaa 240
tgaatttggt ggagacaagg ttgcgtatgc cctgtctcag ggactaaagg tcattgcatg 300
tggttggtgag acccttgagc agaaggaggc tgggtctnac atggatgttg ttgctgcaca 360
aacaaaagca attgctgaga agatcaagga ctggagcaac gtacttggtg cctatgaacc 420
agtttgggct attggaactg gtacagttgc cacctcagct caggctcagg a 471

<210> 179

<211> 402

<212> nucleic acid

<213> Zea mays

<400> 179

cccacgcgtc cgcccacgcg tccggacaag gttgcgtatg ccctgtctca gggactaaag 60
gtcattgcat gtgttggtga gacccttgag cagagggagg ctgggtctac catggatgtt 120
gttctgcac aaacaaaagc aattgctgag aagatcaagg actggagcaa cgtagttgtt 180
gcctatgaac cagtttgggc tattggaact ggtaaagtgt ccacccacgc tcaggctcag 240
gaagtgcacg cctccctgag ggattggcta aagaccaatg ccagccctga ggttctgaa 300
tctactagga tcatctacgg aggtctgtga actgctgcga actgcaaaga gctagcagca 360
cagcctgatg tcatgtgttt tcttgtcggg ggagcttctt tg 402

<210> 180

<211> 450

<212> nucleic acid

<213> Zea mays

<400> 180

atttagaagc gccctcctc ctctccccct tccgtaccca atctaatacga caccgggccg 60
agatggggcg caagttcttc gttggtggca actggaaatg caatggaacc gcagatcagg 120

ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat gttgttgagg 180
tcgttgtcag tcctccttat gtgttcctcc cggtgggtcaa gagccagctg cgccaagagt 240
tccaagttgc tgcttagaac tgctgggtga ataagggagg tgcattcact ggtgaaatta 300
gtgctgaaat gctcgtcaac cttggcggtc cctgggtcat tcttggacac tctgaaagga 360
gagctctgct gggagaatca aatgagtttg ttggagacaa ggttggcttt gctctgtcta 420
agggactaaa ggtcattgca tgtgttggtg 450

<210> 181
<211> 503
<212> nucleic acid
<213> Zea mays

<400> 181

cggcgctcga ggggctgact gttcatttcg cctgtcggtg caagtccgaa attcgccggg 60
ccaccacgc aaccgaacca atctagaagc tccctctcc ctccctccct ctctctctct 120
ctcttcgccg tccgaagctc cgcacccaat ctaatcgaca cctcaccgag atgggccgca 180
agttcttcgt cggtggcaac tggaaatgca atggaaccac agatcaggtc gagaagattg 240
tcaaaaccct gaatgaagga caggttcccc cttcagatgt tgtcgaggtc gttgtcagcc 300
ctccttatgt cttccttcct gtgggtcaaga gccagctgcg ccaagagttc catgttgctg 360
ctcagaactg ctgggtgaag aaggagggtg ctttcaactg tgaagtcagt gctgagatgc 420
tcgtcaacct tgggtgtccc tgggtcattc ttggacactc tgaaaggaga gctctgctgg 480
gagaatcaaa tgaatttggt gga 503

<210> 182
<211> 387
<212> nucleic acid
<213> Zea mays

<400> 182

cccacgcgtc cgcgccccctc ctccctctct tcatccgtac ccaatctaata ctacaccggg 60
gcgagatggg ccgcaagttc ttcgttggtg gcaactggaa atgcaatgga accgcagatc 120
aggttgagaa gattgtcaaa accctgaatg aaggaaatgt tccctcttca gatgttggtg 180
aggtcgttgt cagtcctcct tatgtgttcc tcccgggtgg caagagccag ctgcgccaag 240

agttccaagt tgctgctcag aactgctggg tgaagaaggg aggtgcattc actggtgaaa 300
 ttagtgctga aatgctcgtc aaccttggcg ttccctgtgt cattcttga cactctgaaa 360
 ggagagctct gctgggagaa tcaaatg 387

<210> 183
 <211> 404
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (397)
 <223>

<400> 183

acttgagcag agggaggctg ggtctaccat ggaggttggt gctgcacaaa caaaagcagt 60
 tgctgagaag atcaaggact ggagcaacgt agttgttgcc tatgaaccag tttgggctat 120
 tggaactggg aaagttgcc cccagctca ggctcaggaa gtgcacgcct ccctgaggga 180
 ttggctaaag accaagctca gccctgaggt tgctgaatct actaggatca tttacggagg 240
 ctctgtaact gccgcgaact gcaaagagct agcagcacag cctgatgtcg atgggtttct 300
 tgctcgggtgga gcttctttga agcctgagtt catcgacatc atcaacgcgg ccaccgtgaa 360
 gtccgcttaa gatgttacgc tgaagacgaa catactnttt tttt 404

<210> 184
 <211> 413
 <212> nucleic acid
 <213> Zea mays

<400> 184

aatccaatct agaagcacc ctctccctct ctctctcttc gccgtccgaa gtcctgcacc 60
 ccaatcta atcgacacct cagagatggg ccgcaagttc ttcgtcgggt gcaactggaa 120
 atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg aaggacaggt 180
 tcccccttca gatgttggtg aggtcgttgt cagccctcct tatgtcttcc ttctgtggt 240
 caagagccag ctgcgccaa agttccatgt tgctgctcag aactgctggg tgaagaaggg 300
 aggtgctttc actggtgaag tcagtgtga gatgctcgtc aaccttgggt ttccctgggt 360
 cattcttga cactctgaaa ggaaagctct gctgggaaaa tcaaatgaat ttg 413

<210> 185
 <211> 423
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (7), (9) ... (11), (29), (47), (55), (72)
 <223> unsure at all n locations

<400> 185

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agggggntnn naacagggcc ccagtcccnc gcacgtcca ccggaangga agggncgacc 60
cgagcgagcg gntgctcaga actgctgggt gaagaagggt tgtgcattca ctggtgaaat 120
tagtgctgaa atgctgggtca accttggcgt tccctgggtc attcttggac actctgaaag 180
gagagctctg ctggggagaat caaatgagtt tgttggagac aaggttgctt ttgctctgtc 240
tcagggacta aaggtcattg catgtgttgg tgagaccctt gaggagaggg aggctggttc 300
aaccatggat gttgttgctg cacaaacaaa agcaattgct gagaagatca aggactggag 360
caacgttggt cttgcctatg aaccagtctg ggctattgga actggcaaag tcgccacccc 420
agc 423
  
```

<210> 186
 <211> 423
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (354)
 <223>

<400> 186

```

aagctccgac ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcgggtg 60
gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 120
aaggacaggt tcccccttca gatgttgctg aggtcgttgt cagccctcct tatgtcttcc 180
ttcctgtggt caagagccag ctgcgccaaag agttccatgt tgctgctcag aactgctggg 240
tgaagaaggg aggtgctttc actgggtgaag tcagtgtgta gatgctcgtc aaccttggtg 300
ttccctgggt cattcttgga cactctgaaa ggagagctct gctaggagaa tcanatgaat 360
  
```

ctgttgagaga caagggttgcg tatgccctgt cttaaggact aaaggtcatt gcatgttggtg 420
gtg 423

<210> 187
<211> 379
<212> nucleic acid
<213> Zea mays

<400> 187

gggaggtgca ttcaactggtg aaattagtgct tgagatgctc gtcaaccttg gcgttccctg 60
ggtcattctt ggacactctg aaaggagagc tctgctggga gaatcaaatg agtttggttg 120
agacaagggtt gcttttctgc tgtctcaggg actaaaggctc attgcatgtg ttggtgagac 180
ccttgaggag agggaggctg gttcaacat ggatgttggt gctgcacaaa caaaagcaat 240
tgctgagaag atcaaggact ggagcaacgt tgttcttgcc tatgaaccag tctgggctat 300
tggaactggc aaagtgcga cccagctca ggctcaggaa gtgcacgcct tcctgagggg 360
ttgggtaaag atcaatgtc 379

<210> 188
<211> 349
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (286)
<223>

<400> 188

cggacgcgtg ggctgaaagg agagctctgc tgggagaatc aaatgaattt gttggagaca 60
aggttgcgta tgccctgtct cagggactaa aggtcattgc atgtgttggt gagacacttg 120
agcagagggg ggctgggtct accatggagg ttgttgctgc acaaacaaaa gcaattgctg 180
agaagatcaa ggactggagc aacgtagttg ttgcctatga accagtttgg gctattggaa 240
ctggtaaagt tgccaccca gctcaggctc aggaagtgca cgctncctg agggattggc 300
taaagaccaa cgtcagccct gaggttgctg aatctactag gatcattta 349

<210> 189

<211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 189

 caggtcgaga agattgtcaa aacctgaat gaaggacagg tcccccttc agatgttg 60
 gaggtcggtg tcagccctcc ttatgtcttc cttcctgtgg tcaagagcca gctgcgcca 120
 gagttccatg ttgcggctca gaactgctgg gttaagaagg gaggtgcttt caccggtgaa 180
 gtcagtgtg agatgtctgt caaccttggg gttccctggg tcattcttgg acactctgaa 240
 aggagagctc tgctgggaga atcaaatgaa tttgttgagg acaagggtgc gtatgccctg 300
 tctcagggac taaa 314

<210> 190
 <211> 360
 <212> nucleic acid
 <213> Zea mays

 <400> 190

 gcctctgttg gccgttcgaa tctccgcacc caatttaatc gacacctcac cgagatgggc 60
 cgcagagttc ttcgtcgggtg gcaactggaa atgcaatgga accacagatc aggtcgagaa 120
 gattgtcaaa accctgaatg aaggacagggt tcccccttca gatgttgctg aggtcgttgt 180
 cagccctcct tatgtcttcc ttcctgtggg caagagccag ctgcgccaag agttccatgt 240
 tgctgctcag aactgctggg tgaagaaggg aggtgctttc actggtgaag tcagtgtgta 300
 gatgctcgtc aaccttgggtg ttccttgggt cattcttggg cactctgaaa agagagctct 360

<210> 191
 <211> 338
 <212> nucleic acid
 <213> Zea mays

 <400> 191

 gccaaataca atttagaagc gcccctcctc ctctccccc tccgtaccca atcgaatcga 60
 cccccggccg agatgggccc caagttcttc gttggtggca actggaaatg caatggaacc 120
 gcagatcagg ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat 180
 gttgttgagg tcgttgtcag tctccttat gtgttccctc cgggtggtcaa gagccagctg 240

cgccaagagt tccaagttgc tgctcagaac tgctgggtga agaagggagg tgcattcact 300
ggtgaaatta gtgctgaaat gctcgtcaac cttggcgt 338

<210> 192
<211> 430
<212> nucleic acid
<213> Zea mays

<400> 192

agcatcgtag gcgggccatca tcaaactaca ggctcatggc taggactcgc gggcagatac 60
acgcctcaga attgattcgt aggagacaat gttgcgtatg ccctgtctca tggactaacg 120
gtcattgcat gtgttggtga tacccttgat catagggatg ctgagtctac catggatggt 180
gttgctgcac atccagaagc aattgctgat aacatcaagg actggatcaa cgtaattggt 240
gcctatgaac cactttgggc tattggaact ggtaaagtgt ccaccccgagc tcaggctcag 300
gaagtgcacg cctccctgaa ggattggcta aagaccaatg ccatccctga ggttgctgaa 360
tctactagga tcatctacgg aggctctgta actgctgcga actgcagata gctagcagca 420
cagcctgatg 430

<210> 193
<211> 408
<212> nucleic acid
<213> Zea mays

<400> 193

gcgatccaat ctagactctc ccctcttctc ccctccctct ctctatctct cttcgggggtc 60
cgaatctacg gaccaagcg aatcgacacc tcaccgacat gggccgcacg ctcttcatcc 120
gtggcaactg gaaatgcaat ggaaccacag atcatgtcgc gaacatagtc aaaaccctga 180
atgaacgaca ggttccccct tcagatcttg accaggctgt tgccagccct acttatgtct 240
tccttctgt gctcaagagc cagctgtgcc aagagttcca tgatgctgct cataactgct 300
gggtgaagaa aggacgtgct ttactgggtg aactcagatc tgagatgctc ctcaaccttg 360
gtgatccctg agtcattctt ggacactctg aaacgagaac tctgcttg 408

<210> 194
<211> 267
<212> nucleic acid

<213> Zea mays

<400> 194

tcggccacgc cgttcgccac gcgttcgctt ggacactctt aaaggagagc tcttcttgga 60
 gaatcaaatg aatttggttg agacaaagtt gcgtatgcc tgtctcaggg actaaaggtc 120
 attgcatgtg ttggtgagac acttgagcag aaggaggctg ggtctacat ggagggttgg 180
 gctgcacaaa caaaagcaat tgctgagaag atcaaggact ggagcaacgt agttgttgcc 240
 tatgaaccag tttgggctat tggaact 267

<210> 195

<211> 241

<212> nucleic acid

<213> Zea mays

<400> 195

tcgtgctcac tctacaagga gagctctgct gggagaatca aatgaatttg ttggaaacaa 60
 ggttgcgatg gccctgtctt agggactaaa ggtcattgca tgtgttggtg agacccttga 120
 gcagaaggag gctgggtcta ccatggatgt tgggtctgca caaacgaaag caattgctga 180
 gaagatcaag gactggagca acgtagtttg tgcttatgaa ccatgttggg ctatcggaac 240
 t 241

<210> 196

<211> 260

<212> nucleic acid

<213> Zea mays

<400> 196

atccaatcta gaagctcccc tctccctccc tccctctctc tctctctctt cgccgtccga 60
 agctccgcac ccaatctaata cgacacctca ccgagatggg ccgcaagttc ttcgtcgggtg 120
 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 180
 aaggacaggt tcccccttca gatgttgctg aggtcgttgt cagccctcct tatgtcttcc 240
 ttctgtgggt caagagccat 260

<210> 197

<211> 398

<212> nucleic acid

<213> Zea mays

<400> 197

cagccctgag gtctctgaat ctacaaggat catctatgga ggttcagtaa ctgctgcgaa 60
 ctgcaaagag ctggcagcac agcctgatgt cgatggtttc cttgtgggcg gtgcttcttt 120
 gaagcccgag ttcatcgaca tcatcaacgc cgccgccgtg tgaagtccgc tgaagatggt 180
 ccaacccttc accctgttgc ggtgatgtgc tgaagacaga tcagactact tttttgttta 240
 accgtgcagt gctatgtaag ctactaactt tgcgctgggtg cggatgctga tttccctccc 300
 cctagctttt tgtgaggcta ctctacagct tgattcagct tgctaataat gtttgcctct 360
 ggacatagcg atagtgggtgt ttgtgtagcc cttttttt 398

<210> 198

<211> 231

<212> nucleic acid

<213> Zea mays

<400> 198

caatttagaa gcgccccctcc tcctctcccc atccgtgacc caatctaatac gacacccggc 60
 cgagatgggc cgcaagttct tcgttggtgg caactggaaa tgcaatggaa ccgcagatca 120
 ggttgagaag attgtcaaaa cctgaatga aggaaatggt cctctttcag atgtcgttga 180
 ggtcgttgtc aagcctactt atgtgttctt cccggtggtc aagagccagc t 231

<210> 199

<211> 304

<212> nucleic acid

<213> Zea mays

<400> 199

ctgcaaagag ctggcagcac agcctgatgt cgatggtttc cttgtgggcg gtgcttcttt 60
 gaggcccgag ttcatcgaca tcatcaacgc cgccgccgtg tgaagtccgc tgaagatggt 120
 ccaacccttc accctgttgc ggtgatgtgc tgaagacaga tcagactatt tttttgttta 180
 accgtgcagt gctatgtaag ctactaactt tgcgctgggtg cggatgctga tttccctccc 240
 cctagctttt tgtgaggcta ctctacagct tgattcagct tgctaataat gtttgcctct 300
 ggac 304

<210> 200
 <211> 463
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (5)
 <223>

<400> 200

agcengcgct acagaacagg cagcacccgtc gctctggcct ggcacctttg ggctgggttta 60
 tgtgtcttgat gatgtgcggg tggatgtgag ggctacgcag ttagtcgtgt taagagcctt 120
 aagccgtcgt ctagaatcgt cgggcgaaga agggaggcgt acctatcggc gaaaccagcg 180
 tcgaaacgtc tgctaattcc ggtgcctttc gggctacctc cggatatctc gaaaggagag 240
 tctcgtcggg agaactaaac gagcccgccg gagataaggc cgtccccgtc tcgctctagg 300
 gatcaaaggc taccgtacgc gccggcgaga tttccgagga gagggagggtc ggcctaatta 360
 cggacgccgc cgtcgtataa ataaaagtaa ccgtcgagaa gactaaggat cggagtaatg 420
 ccgcctccgt tcacgaatta gctcgggtca ccggaatcgg taa 463

<210> 201
 <211> 469
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (30), (33), (40)
 <223> unsure at all n locations

<400> 201

agtcagcggg ggctttttga tccccctgtn canatcacgn ctggccccgt tggacgtggt 60
 tatgtgcctg tggatgtgag ggtggatgtg cgggctaccc acctatcgtg ttaagagcct 120
 taagccgtgg tcggagatcg tcgggcgaag aaggaggcgt tacctatcgg cgaaaccagc 180
 gtcgaaacgt ctgctaattc cgggtgccttt cgggctacct ccggatatct cgaaaggaga 240
 gtctcgtcgg gagaactaaa cgagcccgcc ggagataagg ccgtccccgt ctcgctctag 300
 ggatcaaagg ctaccgtacg cgccggcgag atttccgagg agaggagggt cggcctaatt 360

acggacgccg ccgtcgtata aataaaagta accgtcgaga agactaagga tcggagtaat 420
gccgcctccg ttcacgaatt agctcgggtc accggaatcg gtaaagctg 469

<210> 202
<211> 466
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (309)
<223>

<400> 202

ctcgtctgct acgcctctcc tgcaggacga ccaatggctt ccaggaagtt ctctgtgggt 60
ggcaactgga aatgcaacgg tactggcgag gacgtgaaga agatcgtcac cgtgctcaac 120
caagccgagg tgccctctga agacgtcgtc gaggtgggtg tgagtccgcc ttctgttttt 180
ctgcagcagg tcaaggggct gctgcggctg gacttcgccg tcgcagcgca gaactgctgg 240
gtgcgcaagg gcggcgctt caccggcgag atcagtgtg agatgctggt aaacctgcag 300
gtgccctgng tcattttggg acattctgag cgcagagctc tggttgggtga atccagtgat 360
tttgttgctg ataaagttgc atatgcactc actcaaggtc tcaaggtaat tgcttgcat 420
ggtgagaccc ttgagcagag agaggcagga acaacaatgg atgttg 466

<210> 203
<211> 402
<212> nucleic acid
<213> Zea mays

<400> 203

cccacgcgtc cgccctcgcg tctttgcgta cgaggacggc ttctagtccc tcgcctaccc 60
cgcccccgaa cctggcgtct gccctaccaa ccgcagcagc gacactagaa tggccgcggc 120
gccgtcatcc ctgcgctcct cccacctctc cccaatcgcg gcggtgtcca ctcccgccgt 180
cccacatcag ctctgcctcg gctgctcccc ccgacgcgcc gggcgcatcg ttgccatggc 240
tggatccggc aagttcttcg tcggaggcaa ctggaagtgc aatggaacaa aggactccat 300
tagcaaactt gtctctgaat tgaatgctgc tacccttgaa actgatgtag atgttggtgt 360
ggcaccctca tttatctata ttgatcaggt taaagaattc ac 402

<210> 204
 <211> 415
 <212> nucleic acid
 <213> Zea mays

<400> 204

aatgggttat tcttggacac tctgagcgta gacatattat tggtgaaaat gaggagtgtgta 60
 ttggaaagaa ggctgcatat gcattgagcc aaaatgttaa ggttattgcc tgcataaggag 120
 agctgctgga agagagggaa gcaggcaaaa cttttgatgt atgttttagg cagatgaagg 180
 cttttgcaga tagtatttca aactgggcag atgttgtaat tgcatacgag cctgtttggg 240
 ctattggaac cggaaaagtt gctactcctg aacaagccca ggaagttcat gctgctgtac 300
 gcaattggct gaagaccaac atatgaccgc atgttgctc tagcactcga ataatctatg 360
 gaggatctga gaatgcatgc aactgtgcgg agctagcaaa gaaagaagat attga 415

<210> 205
 <211> 433
 <212> nucleic acid
 <213> Zea mays

<400> 205

gagattgggtt gacgaccaac atatcacctg atgttgctgc tagcacacga ataatctatg 60
 gaggttctgt gaatgcagcc aactgtgcag agctagcaaa gaaagaagat atcgacgggtt 120
 ttcttgttgg tgggtgctcg ttgaaggccc cggacttcgc caccattatc aactcagtga 180
 ccgccaagaa agttgcagcc tgatggacca ccctgtgaga aataagaggc catcagcgtg 240
 tcgctcctc tgccacgct taaagcctgt ataggagggtg atccgtgtga tgggtgtgccc 300
 gtcacctcct gtttttctg atttgcagca cggggacaga aaataatgtt ttgctctcgt 360
 ggacctgcac tgcacgtgac gaggagagtt cagttgtcgt gagcgatgta cgttggggat 420
 attgtgatgt ggt 433

<210> 206
 <211> 429
 <212> nucleic acid
 <213> Zea mays

<400> 206

gggtggcacct ccattcatct atattgatca ggtaagaat tcactaactg gtcggattga 60
 ggtttctgct cagaatgtgt ggattggaaa aggaggagcc tacaccggag agatcagtgc 120
 agaacaactg gtggacatcg gctgtcaatg ggttattctt ggacactctg agcgtagaca 180
 tattattggg gaaaatgatg agtttattgg aaagaaggct gcatatgcat tgagccaaaa 240
 tgtaaggtt attgctgca taggagagct gctggaagag aggaagcag gcaaaacttt 300
 tgatgtatgt ttaagcaga tgaaggcttt tgcagatagt atttcaaact gggcagatgt 360
 tgtaattgca tacgaacctg tttgggctat tggaaccgga aaagttgcta cttcttgaac 420
 aaccaaga 429

<210> 207
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 207

ccattcctcc caaaaacaca tcctgcgac ctcgaagcct ccgccgagca tcgatcatgt 60
 cggcctactg cggcaagtac ggggtacgt tccatcgtct cctccttcgt tgctgatctg 120
 cttgtgatgt cgtttggcct cgtgtgtcgt agatctacga tctactagtt gttcgttggt 180
 gatgccctca gatctacctg cgtttgaoga gtatgttaac gattcgtcta gctctgagag 240
 acccaagggg tttgcggatc cttttttaga tccgtacagg ctcttgcggt cgtgccta 298

<210> 208
 <211> 288
 <212> nucleic acid
 <213> Zea mays

<400> 208

cgtcagatc tcgctgtgat tgatgggtat gctaaggcta acggtatat ggacgggaga 60
 aactctttg tagactgtac tgtccacaga tcggagtttg aaatggaatg tgtggacaga 120
 aatctggtgg cctagcctaa cgattcgtat aggtctgaga gactcgttca gttgtaggat 180
 ttgtggattt tttttagatc cgtacaggat tgtgctgtcg tgtgcccgcc aagtgcttgg 240
 tggttgccaa aaggtgatgc ctctgatcgg tttggatatg ggatttgc 288

<210> 209
 <211> 61
 <212> nucleic acid
 <213> Zea mays

<400> 209

ctcccagcac cacctcgccg cgatctccgt agcgtccgtc gcgtcgagca tcgatcatgt 60
 c 61

<210> 210
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 210

agtcagatat gtaaactcgtt taaagctttg tgctagtcta atcttgatct gtgggttcctt 60
 ttagtcatga tgtttatgcc gatacaatta tatataaagc agtttttggg taataaacag 120
 taaacttcct gaattaataa ttaaagttaa ttttgtatta ttcaggatgg cctcctgatt 180
 tgataatgga agtcattttg tattattcag tatagccttg gtacctgga gatagccatg 240
 cttattatgc atattgtttt gcagatgagc tcatcaagaa tgctgcctac attggcaccc 300
 ccggcaaggg tacccttgcg gctga 325

<210> 211
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 211

tgcaccacag gaaagcgctg ccaccggcac catgccccac ccatacccag cactgacccc 60
 ggaccatata aaggagcttg ctgacatcgc tcaccgcatt gtagctccgg gcaagggcat 120
 cctggctgca gacgagtcca ctggaagcac tgccaagcgc ctgcagtcca ttggcagcga 180
 gaacaccgag gagaacaggc gtttctaccg ccaactgctg ctgactgccg atgaccgtgt 240
 gaatccctgc attggaaggg tgatcctttt ccacgagaca ctataccaga aggcaga 297

<210> 212
 <211> 167
 <212> nucleic acid
 <213> Zea mays

<400> 212
 tgtctatctg gaaggcacac tgctgaagct catcattgtc acccctggcc atgcttgac 60
 ccagaaattt tccaatgagg aaattgccat ggctatatac acagcacttc gtcgaacagt 120
 gccccctgcc gtccctgggg tcactttcct gtctggaggg cagagtg 167

<210> 213
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 213
 ctcgagccga atcggtcga ggtattagtt agataaccgt gctagtgtt attgattgtc 60
 aagtcccact gttcttgctc taaatctgtg tctgttgtt tgcagatgag ctcatcaaga 120
 atgctgccta catcggcacc cctggcaagg gtatccttgc tgctgatgag tcaactggca 180
 ccagtggcaa gcgcctttcc agcatcaatg tcgagtacgt ggaggagaac cggcgggctc 240
 tccgtgagct cctgttc 257

<210> 214
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 214
 gggtgacaag ggtttggttc cattgcctgg atccaacaat gaatcatggt gccaaagtct 60
 tgatggtttg gcttcaagggt gtgctgagta ctataagcag ggggcgcgct tcgcaaagt 120
 gaggactggt gtttagcatcc cttgtggtcc atctgcatta gcagtcaagg aagcagcatg 180
 gggacttgct cgatatgctg ctattgctca ggataatggt ttagtgccaa ttgtggagcc 240
 agagattctt cttgatggag accatgggat cga 273

<210> 215
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 215
 gggtgacaag ggtttggttc cattgcctgg atccaacaat gaatcatggt gccaaagtct 60

tccagtacat cagcgggtgtg atcctcttcg aggagaccct ctaccagaag accaaggatg 240
gcaagccttt tgcgatgtc ctcaaggagg gaggcgt 277

<210> 222
<211> 203
<212> nucleic acid
<213> Zea mays

<400> 222

ggatgatggg tatctttata ttgtatgtt aattagtctc ttgctgtta aatttcgtgt 60
aagttgggtcc tgccgatgga gaatcgagca gtcctctttt ttgtttctat caactatgct 120
gtaattctgg ctatgtatcg gcaaaaacaa ttctatatgc tgagttggag tcggcaaaaa 180
ttcatatatg ctgagttgga gac 203

<210> 223
<211> 158
<212> nucleic acid
<213> Zea mays

<400> 223

ccacctcgcc gcgatctccg tagcctccgt cgcgtcgagc atcgatcatg tcggcctact 60
gcggaaagta caaggatgag ctcatcaagg attgctgcct acattggcac ccctggcaag 120
ggtatccttg ctgctgatga gtccactggc accattgg 158

<210> 224
<211> 93
<212> nucleic acid
<213> Zea mays

<400> 224

cgaccttggc aagcgttgcg ccaagtacta cgaggcaggt gcccgtttg ccaagtggcg 60
cgctgttctc aagattggcc ctaatgagcc atc 93

<210> 225
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 225

gaacaatcca gtgtgcctat cagtgtccac tatgaccacg gcattttccaa gtcagacttg 60
 cttcaagctc ttgaagcggg atttgattca gtcatgggtg atgggttctca tctaacttta 120
 ggggataaca tcttatacac aaagagcata tcttccttgg ctcatgcaaa aggtttactt 180
 gtggaagctg agttgggtag gctctcaggc tctgaagatg gcatgaccgt tgaagaatat 240
 gaagcaagat ttactga 257

<210> 226
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 226

ctaaagcaag gtggagtcac actggtagca tgttgcattg ctgctgcaga acaatccagt 60
 gtgcctatca gtgtccacta tgaccacggc atttccaagt cagacttgct tcaagctctt 120
 gaagcgggat ttgattcagt catgggtggat ggttctcatc taactttagg ggataacatc 180
 ttatacacia agagcgtatc ttccttggct catgcaaaaag gtttacttgt ggaagctgag 240
 ttgggtaggc tctcaggctc tgaagatg 268

<210> 227
 <211> 136
 <212> nucleic acid
 <213> Zea mays

<400> 227

cgctgtcctt ctccttcggc cgcgcgctgc agcagagcac cctcaagaag tgggtcggca 60
 agaaggagaa cgtcgccgcc gcgcatgcca ccttcgtcat ccgctgcaag gccaaactccg 120
 aggccgcgct gggcaa 136

<210> 228
 <211> 207
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (87)
 <223>

gtgataacag tgctcttgct aaagtgggtga aaagtggggc ttccccatct agaagttcta 240
 caaaagaaat tcttcttgat gcggagaatg gcggttatgc tgttgggtgct ttcaatgtgt 300
 ataaccttga gggaattgaa gctgttggtg cagcagcaga ggctgaaaag agtcctgcta 360
 ttcttcagat tcatccgagt gctctaaagc aaggtggagt cccactggta gcat 414

<210> 231
 <211> 355
 <212> nucleic acid
 <213> Zea mays

<400> 231

attcactata accttgatac ctggtagata gccatgcttt atgcatatcg tattgcagat 60
 gagtcatca agaatgctga ctacattggc acccctgaca agggatcct tgctgctgat 120
 gagtccactg gcaccattgg caagcgcctt tccagcatca atgtctagaa cgttgacgag 180
 aaccgcgctg cctccgctga gctcctattc tgctgccctg gtgctctcca gtacatcagc 240
 ggtgtgatcc tcttcgagga gaccctgtac cagaagacca aggatggcta gccttctgtc 300
 gatgtcctga acgagggagg cgttctccat agcatcaagg ttgacaaggg cacca 355

<210> 232
 <211> 154
 <212> nucleic acid
 <213> Zea mays

<400> 232

gtcctgccga tggagaatcg agcagccctt tttttttggt ctatcaacta tgctgtaatg 60
 ctggctatgt atcggaacaa acaattctat atgctgagtt ggagtcggca aaaattcata 120
 tatgctgagt tggagacagc aacttgtttg gatc 154

<210> 233
 <211> 146
 <212> nucleic acid
 <213> Zea mays

<400> 233

ggaggccatc ttcgtcgacc cggccctccg cgggaagtac tgcgtctgct tcgaccgct 60
 ggatggctcc tccaacatcg actgtgggtg ctcaatcgga acggtgtgtc actgtcactc 120

146

<400> 234

60

120

180

184

<400> 235

60

120

180

183

<400>	236
-------	-----

60

120

180

240

300

342

acgtgtgcca gccggggagc aacctgctgg ccgccg

276

<210> 240
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 240

tgcagatccc caaggcgggc aagatctacg ccttcaacga gggcaactac gcgctctggg 60

acgacaagct gaagctgtac atggacagcc tcaaggagcc cggcgactcg gggaagccct 120

actccgcgcg gtacataggc agcctcgtcg gggacttcca ccgcactctt ctctacggag 180

ggatctacgg gtaccccagg gacaagaaga gcaagaacgg caagctgcgg cttctctacg 240

agtgcgcccc catgagcttc atcgctcgag 269

<210> 241
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 241

ctcggggaag ccctactccg cgcggtacat aggcagcctc gtcggcgact tccaccgcac 60

tcttctctac ggagggatct acgggtaccc cagggacaag aagagcaaga acggcaagct 120

gcggcttctc tacgagtgcg ccccatgag cttcatcgctg agcaggccgg tggcaagggc 180

tctgacggcc accagagaat tcttgacatc acacctacag agatccacca aagagtgcct 240

ctgtacattg ggagcgtgga ggaagtggac aaggtggaga attcctggct tg 292

<210> 242
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 242

cgcgctctgg gacgacaaac tgaagctgta catggacagc ctcaaggagc ccggcgactc 60

ggggaagccc tactccgcgc ggtacatcgg cagcctcgtc ggcgacttcc accgcactct 120

tctctacgga gggatctacg ggtaccccag ggacaagaag agcaagaacg gcaagctgcg 180

gcttctctac gagtgcgccc ccatgagctt catcgctcgag caggccggtg gcaagggctc 240

tgacggccac cagagaattc ttgacatcac acctaca

277

<210> 243
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 243

cggttaccca gggacaagaa gagcaagaac ggcaagctgc ggctttctcta cgagtgcgcc 60
cccatgagct tcatcgtcga gcaggccggt ggcaagggct ctgacggcca ccagagaatt 120
cttgacatca cacctacaga gatccaccaa agagtgcctc tgtacattgg cagcgtggag 180
gaagtggaca aggtggagaa attcctggct tgaatgccag agctctctca tcagatggac 240
tcccgaagac atcaagttta gggagggga 268

<210> 244
<211> 324
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (103)
<223>

<400> 244

gagaccgcga gagtgtacgt gccaccagga gcagcagcag caatggccgc cgccgccacc 60
acctctcat cctcccactt gctcctctc tcccgccagc agngggcctc cctacgatgc 120
cgctctctct tctcggcca gcccagaagg cccggcaggg tcacggccca ggcgcccggc 180
gctaaggacg tgcggtgcat ggcggccgtg gacactactg cggcgtccac ggcggcggcg 240
gagacgagcc ccaagtcgag cagctacgag atcgtgacgc tcacgacgtg gctgctgcag 300
caggagcgga ccggcgcgat cgac 324

<210> 245
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 245

gagagtgtac gtgccaccag cagcagcagc agcagcaatg gccgccgccg ccgccacctc 60
 ctcatectcc cacctgctcc tcctctcccg ccagcaggcg gcctccctac gatgccgcct 120
 ctccttcttc ggccagccca gaaggcccgg cagggtcacg gcccaggcgc cggccgctaa 180
 ggacgtgagg tgcattggcg ccgtggacac tactgcggcg tccacggcg cggcggagac 240
 gagccccaag tcgagcagct acgagat 267

<210> 246
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 246

gtgtacgtgc cacaagcagc agcagcagca gcaatggccg ccgccgccgc cacctcctca 60
 tcctcccacc tgctcctcct ctcccgccag caggcggcct ccctacgatg ccgcctctcc 120
 ttctctggcc agcccagaag gcccggcagg gtcacggccc aggcgccggc cgctaaggac 180
 gtgcgggtgca tggcgggcgt ggacactact gcggcggtcca cggcgggcgga ggagacgagc 240
 cccaagtcca gcagctacga gatcgtgacg ctacagcgt ggctgctgca gcaagagcgg 300
 accggcgcca 310

<210> 247
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 247

ccggaacccc gagtcccgcg ggcacttcac atccttctct cccacatcgt cctcggtgctc 60
 aagttcgtcg cctccgccgt caacaaggcc gggctcgccc agctgatcgg gctcgccggc 120
 gagaccaacg tgcagggaga ggagcagaag aagctggacg tcctgtccaa cgaggtgttc 180
 gtcaaggccc tcgtcagcag cggtcgcacc tccgtccttg tgcctgagga ggcgaggaag 240
 caacgttcgt ggacc 255

<210> 248
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 248
 gggatgtgcc tacagccaaa ttcgtgaaga aatgcaagta tcctgaggat gggttcaccgc 60
 ctagatcctt gagatatatc ggaagtatgg ttgctgatgt ccatcgcacc ttactatacg 120
 ggggcatatt tttgtaccca gcagaccaga agagtccaaa cgggaaacta cgcgttctgt 180
 atgaagtctt cccgatgtca ttcctgatgg aacaagctgg aggccaggct ttcacaggca 240
 aacaacgggc ccttgaactt gctcccgcga aacttcacga cagatcccca gtgttcctcg 300
 ggagctacga tga 313

<210> 249
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 249
 cttgtggtcc ttgtgaatgg tttgcagtat gggttctgat gtccatcgca ccttactata 60
 cgggggcata tttttgtacc cagcagacca gaagagtcca aacgggaaac tacgcgttct 120
 gtatgaagtc ttcccgatgt cattcctgat ggaacaagct ggaggccagg ctttcacagg 180
 caaacaacgg gcgcttgaac ttgctccgc taaacttcac gacagatccc cagtgttcct 240
 cgggagctac gatgacgttg aggagatcaa ag 272

<210> 250
 <211> 242
 <212> nucleic acid
 <213> Zea mays

<400> 250
 caagtatcct gaggatggtt caccgcctag atccttgaga tatatcgga gtatggttgc 60
 tgatgtccat cgcaccttac tatacggggg catatTTTTTg taccagcag accagaagag 120
 tccaaacggg aaactacgcy ttctgtatga agtcttcccg atgtcattcc tgatggaaca 180
 agctggaggc caggctttca caggcaaaca acgggcgctt gaacttgctc ccgctaaact 240
 tc 242

<210> 251
 <211> 384
 <212> nucleic acid

<213> Zea mays

<400> 251

agactaaagc atagtatcat cageaagggg gcccttttct gtaccagagc ctcagatcgt 60
gatttcgtca taagccacgc tgaattttat gccgtttcag attcgtggat aagtgcaggt 120
atcctgaaga tggttcaccc cctagatccc tgagatatat cggtagtatg gttgctgatg 180
tccatcgac cttactagac gggggcatat tttgtaccc agcagaccag aagagtccag 240
acgggaaact acgcgttctg tatgaagtct tcccgatgac attcctgatg gaacaagctg 300
gaggccaggc tttcacaggc aaacaaaggg tgtgtttcag tttcccgctc tcagacccca 360
atccccaact gaaaaatctt gatg 384

<210> 252

<211> 337

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (9)...(10), (22), (26)

<223> unsure at all n locations

<400> 252

atggtctnn ccagggtcac gnacgnatga tcacatcatt gatggaatta ccggactcga 60
cccatcgct caggccacgc gtacagcatc tcgctagctt ttcttatgca ttcagatcct 120
ctctctacaa gagaagttct taagcaagat ggaccgcccg gcagacacac acctgactga 180
cctgatgacc atcaactcagg tcattcttaa ctaacaaatc ccttacctct attgccgcta 240
ctacttcacc attctgctct accacatcat cctatgctac aagtatatca cctccgctcag 300
tcaacaaggc cgagctctcc cagctcatct gactcac 337

<210> 253

<211> 221

<212> nucleic acid

<213> Zea mays

<400> 253

cccacgcgtc cgcggcgcca tcgacaacga gatgaccatc gtgctggcca gcatatccac 60
ggcgtgcaag cagatcgagg cgctgggtgca gcgcgcgccc atctccaacc tcacgggcgt 120

tcaaggcgcc gtcaacgtgc atggcgagga ccagaagaag ctcgatgtcg tctccaacga 180
 ggtgttctcc aactgcctca agtcgagcgg gcgcaccggc g 221

<210> 254
 <211> 459
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (124), (131), (187), (191), (201), (208), (227), (239), (247),
 (249), (258), (274), (278), (280), (292), (295), (297), (301),
 (305), (307), (313), (317), (331), (333), (340), (352), (364),
 (367), (376), (382), (394) ... (395), (407) ... (408), (411),
 (423), (428), (441), (445), (449)
 <223> unsure at all n locations

<400> 254
 cacgggcggtt cagggcgccg tcaacgtgca gggcgaggac cagaagaagc tcgatgtcgt 60
 ctccaacgag gtgttctcca actgcctcaa gtcgagcggg cgcaccggcg tgatcgcttc 120
 ggangaggaa ngaacttccc gttacggttg gagcaagaac taactcccgg gaaactaaca 180
 atccgtncgt ntttcaacct nctcgaangg ctctcaaaa atcaacnccg cggttctcna 240
 cggggcncna tcttcggnat ctacaacccc aacnattnan tgctctgccg anttnancaa 300
 naatnanacc ctnaatncgt tgaacaaaag ntnaatcttn aacttttgca anccggggaa 360
 ccancnngct ggcccnccgg gnaactgcat ttanncaacc tcggtgnntt ntccggctaa 420
 ccnttgnnac cgggggttta ncttntttna cctggaccc 459

<210> 255
 <211> 422
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (390), (410)
 <223> unsure at all n locations

<400> 255
 ccacgtgct ggccagcata tccacggcgt gcaagcagat cgcggcgctg gtgcagcgcg 60
 cgcccatctc caacctcacg ggcgttcagg gcgccgtcaa cgtgcagggc gaggaccaga 120

agaagctoga tgtcgtctcc aacgaggtgt tctccaactg cctcaagtcg agcgggcgca 180
 ccggcgtgat cgcctcggag gaggaggacg tgcccgtagc ggtggagcag agctactccg 240
 gcaactacat cgtcgtgttc gaccctctcg atggctcctc caacatcgac gccgccgtct 300
 ccactggctc catcttcggc atctacaacc ccaacgatga gtgcctcgcc gacgtcgacg 360
 acaatgacac ccttgattcg ggtggagcan aggtgcatcg tgaacgtgtn ccaaccgggg 420
 ga 422

<210> 256
 <211> 419
 <212> nucleic acid
 <213> Zea mays

<400> 256
 ctcaagtcga gcgggcgcac cggcgtgacg gcctcggagg aggaggacgt gcccgtagcg 60
 gtggagcaga gctactccgg caactacatc gtcgtgttcg accctctcga cggctcctcc 120
 aacatcgacg ccgccgtctc cactggctcc atcttcggca tctacaaccc caacgacgag 180
 tgccctcgccg acgtcgacga caatgacacc gtgagtgcta attaattctca tctcccttac 240
 cttctttctg ttctgactgg ctcatctacgt gacaattcta tctccaacac tacactacgt 300
 acgtacgcgc gcgcagcttg attcgggtgga gcagaggtgc atcgtgaacg tgtgccagcc 360
 ggggagcaac ctgctggccg ccggctactg catgtactcg agctcgggtga tcttcgtgc 419

<210> 257
 <211> 430
 <212> nucleic acid
 <213> Zea mays

<400> 257
 gaccgcgaga gtgtacgtgc caccaggagc agcagcagca atggccgccg ccgccaccac 60
 ctctcatcc tcccacttgc tctactctc ccgccagcag gcggcctccc tacgatgccg 120
 cctctccttc ctcgccagc ccagaaggcc cggcagggtc acggcccatg cgccggccgc 180
 taaggacgtg cgggtcatgg cggccgtgga cactactgcg gcgtccacgg cggcggcgga 240
 gacgagcccc aagtcgagca gctacgagat cgtgacgctc acgacgtggc tgctgcaaca 300
 ggagcggacc ggcgcgatcg acaacgagat gaccatcgtg ctggccagca tatccacggc 360

gtgcaagcag atcgcggcgc tgggtgcagcg cgcgcccacg tacaacctga cgggcggttca 420
gggcgcgcgtc 430

<210> 258
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 258

accacgcgtc cgcccacgcg tccgagtggg caaggtggag aaattcttga catcacacct 60
acagagatcc accaaagagt gcctctgtac attgggagcg tggaggaagt ggacaagggtg 120
gagaaattcc tggcttgaat gtccctgctt catgccagag ctctctcatc agatggactc 180
cccaagacat caagtttagg gaggggaatat gtactctctc tttcccaccc caaataagtc 240
ttcttcgtct catatttoga taaatcaaac aatctcaatt ttgatcta atatacacac 300
aacattaata ttt 313

<210> 259
<211> 296
<212> nucleic acid
<213> Zea mays

<400> 259

gctgcgtcgt gccttcgcag cacgaatcgc tggatttcaa gtttgttttg aagcgaaaag 60
gtgataatcc tcaatacatt attgaggagg gacctaacgg accattgggt tgccagagaa 120
atgaatttga gatggggaat gcgttggtta aactcaacga aggggaaggag gtacttgagt 180
gcaaggttca gggtgagaca gaaatgttat cccaattga cttggcggct agttggagag 240
ctcatcagga gtattttcag ccttcaaggg tgcggggggac tcacgatgtc actatc 296

<210> 260
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 260

caaaaggggc tgttcgttga caggggtgtt ggctcttcta tgcttccaaa atcagccagt 60
gcatgtctct tggcatctgg gtttagtttt ggatcagcaa agacaatgcc agaagcagca 120

ggagctgttg cagctgcagc tgtagctgat cgtttgcatt ggtcaaagga ggaccggaag 180
 ctggccattg ttttggttgg cctaccagct cgtggtaaaa ccttcaactgc agttaagctt 240
 acaagggtacc ttcgttgggt gggccatgaa actagacatt tcaatgttgg gaagtatc 298

<210> 261
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 261

gcgcccctgc catggaaagg gagctcgcgt ccatgtgggt gctcagcttc gtcgtgccgc 60
 cggaccatga aacactggac ttcaagttct tgctgaagcc caaagacgct gaaacccccgt 120
 gcatcatcga ggaaggaccc acacggctcc tcaccggagg catgctagag ggtgatgtga 180
 gggttgcact gttcaagctc aatggagatg atgaggtgct cgagtttggg gtggtcaaca 240
 aggcggacct tgtatcacccg cttgaacttg ctgcaagctg gaggggtgtac aaggagaact 300
 ttcagccttc caaagttcgg gggat 325

<210> 262
 <211> 245
 <212> nucleic acid
 <213> Zea mays

<400> 262

cccacgcgtc cgagtgtgtg atgggatgac ttatgaagag ataaagaaaa tcatgcccga 60
 ggaatttgag tcacgaaaga aggacaagct aagataccgc taccctccgtg gagaatctta 120
 cctcgatgtg atacagagga tggaacccgt catcatcgag ctagaacgcc agcgtgcacc 180
 agtggttgtc atatctcatc aggetgtact gcgagcactg tatgcatatt tcgcggaccg 240
 tcctt 245

<210> 263
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 263

cccacgcgtc cgcaacaaag tcctgattat gcagagcaaa cagattttga agctgggtga 60

caagatttca aagagcgatt gacctattat gaaaaggctct atgaaccggt ggaagaaggt 120
tettacataa aaatgattga catgggttagt gggaaggggg gccaaactaaa gattaatgac 180
ataagtgggtt acttgccctgg acggatcggtt ttcttcttgg gtaactgtca tctgacacct 240
cgtccctatcc tgctaacaag acatgggtg 268

<210> 264
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 264

aaactcaacc ggagatggcg agctctggcg gaatctccga ccagctcttc gtctccgtca 60
agttagagag cccgcacctc gcggagctcg acctcgcccc ccacctcttc ggctcccacc 120
ctgtggctgg ctcgtgggac ccctgcaagg ccctgccttt ggagcgggcg gccaccgccg 180
tgtgggagtt cagctgcgtc gtgccttcgc agcacgaatc gctggatttc aagtttggtt 240
tgaagcgaaa aggtgataat cctcaatata ttattgaggg 280

<210> 265
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 265

cttgtcccta ggttgggtata tttgacgcaa caaacagcac aagaaagcga agatatatgc 60
taatgaaaat ggctgaaggt aactgtaaga ttatatTTTT ggagacaata tgtaatgatc 120
caaacataat tgaaagaaac atacggctga agatccaaca aagtccagac tatgctgaac 180
agctagatta tgaagctgga ctggaggact tcaaggaacg tttgattaat tatgaaaagg 240
tctacgagcc agtaggggaa ggttcttaca tcaaaatgat tgacatggta aaggggcaag 300
at 302

<210> 266
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 266

ggaagaatcg gtggagactc ttctttgagt gaggccggtg agctttattc aaggaagctt 60
 gcgagctttg tggagaagcg actgaaatcc gagcggactg cctctatatg gactagcaca 120
 ctccagagaa caatattaac agcacatcgg atcattggat ttccaaagat acaatggcgt 180
 gctcttgatg agatcaatgc tgggggtctgt gatgggatga catacgatga aataaagaaa 240
 agtaaacctg aagaatatga atcacgaaga taagacaagc tgaggtatcg ttatccgaga 300
 ggggagatcct atct 314

<210> 267
 <211> 320
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (276)
 <223>

<400> 267

ctcatgtaga tgcgactaca caccatagtc gagatacaaa tgggcgtcac ggggtgtggaa 60
 gagaagaggt acaaactcat ggactgagtg agtacatagg agcagctact tgggtgtgtc 120
 atacatcgag tacacataac acagaagcgt ttgcccttct ctctctctcc acacgggtgtt 180
 cagtgttaatt gctctggaaa agagacatgt tgaacattgt aaaggaaaaa ctaataaggg 240
 actgtaaaaag tggcatgcgt actgtaacgg ataagngata cagactgggg tgctcaatgc 300
 ttattcagag catattcgtc 320

<210> 268
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 268

gtgatgggat gacatacgat gaaataaaga aaagtaaacc tgatgaatat gaatcacgta 60
 gaaaagacaa gctgaggcat cgttatccga gaggagaatc ctatcttgac gtcattcaaa 120
 gactagaacc tgtgataatt gaacttgaac gacagcgtgc tccagttgta gtcatagctc 180
 accaggctgt gttgagagca ctttatgcat actttgcgga caaaccgctt gaggaagtcc 240

caaattattga gataacctgta catac

265

<210> 269
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 269

ggtcagttac aggtaaataa tatcagcggg tatctccctg ggaggattgt cttcatcttg 60
gtgaactctc atcttacacc acgacctatt ttgcttacca ggcattggga gagttttacat 120
aatgttagag gaagagtcgg tgggtgataca gttctaagt aaactggcga actttatgca 180
aagaaactag ccaactttat agaaaagcgg ctcaaattgt agaaaacagc aactatatgg 240
accagtaccc ttc 253

<210> 270
<211> 260
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (231)
<223>

<400> 270

gaaaagggtc acgagccagt aggggaagg tcttacatca aaatgattga catggtaaag 60
gggcaagatg gtcagttaca ggtaaataat atcagcgggt atctccctgg gaggattgtc 120
ttcttcttgg tgaactctca tcttacacca cgacctattt tgcttaccag gcatgggtgag 180
agttttacata atgttagagg aagagtcggg ggtgatacag ttctaagtga nactggcgaa 240
ctttatgcaa agaaactagc 260

<210> 271
<211> 243
<212> nucleic acid
<213> Zea mays

<400> 271

cgggtgtgga agagaagagg taaaaactca tggactgaat gaatacataa aagcagctgg 60
ttggctgttt catacagcaa gtacacataa cacagaagcc ttttcccttc tctctctctc 120

<210> 274
 <211> 442
 <212> nucleic acid
 <213> Zea mays

<400> 274

atggggaatg cgttggttaa actcaacgaa tggaaggagg tacttgagtg caagggtgag 60
 gtggagacag aaatgttata cccatttgac ttggcggcta gttggagagc tcatcaggag 120
 tattttcagc cttcaagggt gcgagggact cacgatgtca ctatcaaccc tgggttagaa 180
 ggcagggcca agaatggctt cgcttctggt ttgaagcttg atttagacaa gtatgtagtt 240
 ccaacaccaa acatgggctc aggtgttggt tatgcagcta gtttgactga aaatccacgc 300
 tcattattgc aaactgcgag ttccatatac aatgatacca caaaggacat tttgcacaac 360
 tcaactaaag gcgattcatc cttgaatcac tatgttaaca ctatgaagag cacaattgga 420
 gggcatgcat cgtcactgga ag 442

<210> 275
 <211> 403
 <212> nucleic acid
 <213> Zea mays

<400> 275

atgtatgcat atttcgcagt ccgtcctttg agagaagttc cagagataca gatgccacta 60
 gacaccataa tcgagataca aatgggcgctc actggtgtgg aagagaagag gtacaaactc 120
 atggactgaa tgaatacata aaagcagctg gttggctggt tcatagagca agtacacata 180
 acatagaagc cttttccctt ctactctct ctccacacgg tgttcattgt aatttctttg 240
 gaaaaaagac atgttgaaca atgtaaaca acaactaata acgaactgta cgaatggcat 300
 gcttactgta acgaataacg aatacatact gggggtcacc aatgcgtagt cagaaacata 360
 ttccgtcaaa gaacatagcg aaatgctgca gaagaaacgc ccg 403

<210> 276
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 276

gatttattga caacaccgat cctgctggga ttgatcatca aattgctcaa ctaggacctg 60

aactggcaac tactcttgta attgtcattt ctaagagcgg aggcacacct gaaacccgca 120
atggtctact agaagtacag aaagccttca gagatgcggg gctgcaattc tcgaaacagg 180
gtgttgcaat tactcaagaa aattctctgt tggataacac tgctagaata gagggatggt 240
tagctcggtt tcctatgttt gattgggttg gtggtaggac ttcagaaatg tctgctgtgg 300

<210> 277
<211> 208
<212> nucleic acid
<213> Zea mays

<400> 277

cgccaacccc gacgagggtc gcatgggtgg ccactactgg ctccgcgacc cggccctcgc 60
tcccaactcc ttctccgga acaagatcga gaccgcactc gacaaaatcc tcgccttctc 120
ccaagatgtc atctctggaa agattctttc cccatctggt cgtttcactt caattctctc 180
tataggaatc ggagggtcag ctttgggc 208

<210> 278
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 278

cccacgcgtc cgataacact gccagaatag agggatgggt agctcggttt cctatgtttg 60
actgggttgg tggtaggact tcagaaatgt cagctgttgg tttacttcca gctgcattgc 120
agtgtattga tatcaaggaa atgctatttg gtgcagcttt aatggatgag gaaacccgga 180
aactgtggt taaagcaa atcagcagcat tgcttgcat atgttggtat tgggcatcgg 240
aagggatagg caaaaaggat atggttg 267

<210> 279
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 279

agcttctcgc ttttttaacc acagttgtca acctaactgt cggctggaga aatggaatca 60
gagggctcgc ttatgggcct caatttggtg ctaaaccact tgcacctgat aaccctccac 120

tgaaggtaag atttattgac aacatcgatc ctgggtgggat tgatcatcaa attgctcaac 180
taggatctca actggcaact agctactctt gtaattgtca tttctaagaa cacttgaggg 240
agggggaact gctgaagc 258

<210> 280
<211> 229
<212> nucleic acid
<213> Zea mays

<400> 280

gcagaatgtg aacagggcca caactgggat tccttgaaat gttgatccag ttgacgttgc 60
acgaagcatt aaagatttgg atccagaaac cactctgggtg gtggctgtat caaagacatt 120
cacaacagct gaaacaatgt taaatgctcg aactcctaag gagtggatcg tttcttctct 180
tgggacacag gctgttgcca tacatatgat tgctgtcagc actaatctt 229

<210> 281
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 281

aggttggaca gcttttatcc atctatgagc accggattgc agttcagggc ttcatatggg 60
gaattaactc atttgacca tggggagtggt acctagggaa gtcactcgct tctcaagtga 120
ggaaacagct gcatggaacc cggatggaag gaaagcctgt tgagggtttt aaccacagca 180
cttcaagttt gcttgacga tatcttgctg tcaagccatc caccctgat gatactaccg 240
tgctgccgaa ggtgtaatta ctcagttggt tttgacatgc caattgctga gctctgactt 300
ggcaagggtg agcataagtc tttcttcatt ttgggag 337

<210> 282
<211> 248
<212> nucleic acid
<213> Zea mays

<400> 282

gcggggctgc aattctcgaa acaggggtgtt gcaattactc aagaaaattc tctgttggat 60
aacactgcta gaatagaggg atgggttagct cgggttccta tgtttgattg ggttggtggt 120

aactggcaac tactcttgta attgtcattt ctaagagcgg aggcacacct gaaacccgca 300
atgg 304

<210> 289
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 289

ctttatgcaa atgaccggga gtctatctct gttactgtgc aagaggtaac tcctagagct 60
gttgagcac tgattgcact ttatgaacgt gctgtgggga tttatgcttc tttggtaaata 120
atcaatgcct atcatcagcc tgggtgttgag gctgggaaaa aggcagcagg agaagtattg 180
gcccttcaga aaagggttct gactgtatta aaggaggcca tctgcgagaa ccctactgag 240
ccattgactc tagatgaaat tgcagatcgc tgc 273

<210> 290
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 290

ctatcatcaa cctggtggtg aggctgggaa aaaggcagca ggagaagtgt tggcccttca 60
gaaaagggtg ctgactgtat taaatgaggc aacctgcaag gacccttggtg agccattgac 120
tatagatgaa attgcagatc gctgccattg ccctgaagat attgagatga tctacaaaaat 180
agtccagcac atggctgcta acgacagagc aatcatagca gaaggcagct gtggctctcc 240
tcgcagcgtt aagggtgtacc tcggtgaatg caatgtagac gaagacttgc aggccgcgta 300
ggttccgagc ctggatccgt gt 322

<210> 291
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 291

atcaacctgg tgttgaggct gggaaaaagg cagcaggaga agtggtggcc cttcagaaaa 60
gggtgctgac tgtattaaat gaggcaacct gcaaggaccc ttgtgagcca ttgactatag 120

atgaaattgc agatcgctgc cattgccctg aagatattga gatgatctac aaaatagtc 180
 agcacatggc tgctaacgac agagcaatca tagcagaagg cagctgtggc tctcctcgca 240
 gcgttaaggt gtacctcggt gaat 264

<210> 292
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 292

cggacgcgtg gtttgagtag atatttgcaa caacttgtca tggaaatctct tggaaaagaa 60
 ttcgacctgg atggcaaccg tgtaaatcaa gggctaactg tatatggtaa caaaggaagc 120
 actgaccagc atgcttacat tcagcagctg agagaagggtg tacaaaactt ctttggttacg 180
 ttatttgagg tcttgcgtag caggcctgct ggacatgatt ggagacttga acctggagtc 240
 acgtgtggtg actatttggt tgggatgttg cagggaaacc gttctgctct ttatgcaaat 300
 gaccgggagt 310

<210> 293
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 293

gttgcttttg agtagatatt tgcaacaact tgtcatggaa tctcttggga aagaatttga 60
 tctggatggc aaccgggtaa atcaagggt atctgtatat ggaaacaaag gaagtactga 120
 ccagcacgct tacattcagc agctgagaga aggtgtacac aacttctttg ttacttttat 180
 cgaggctctg cgtgacaggc ctgctgggtca tgattgggag cttgaacctg gagtcacatg 240
 tggtgactat ttgtttggga tggtgcaggg aacacgttct gctctttatg caaat 295

<210> 294
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 294

acaaaggaag cactgaccag cacgcttaca ttcagcagct gagagaagggt gtacacaact 60

tctttgttac ttttatcgag gtcttgctg acaggcctgc tggatcatgat tgggagcttg 120
aacctggagt cacatgtggt gactatttgt ttaggatgtt gcagggaaca cgttctgctc 180
tttatgcaaa tgaccgtgaa tctatctctg ttactgtgca agaggtaact cctagagctg 240
ttggagcact ggttgcactt tatgaacgtg ctgtggggct ttatgcttct ttg 293

<210> 295
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 295

gggtgtacaaa acttctttgt tacgtttatt gaggtcttgc gtgacaggcc tgctggacat 60
gattggggagc ttgaacctgg agtcacgtgt ggtgactatt tgtttgggat gttgcaggga 120
accogttctg ctctttatgc aaatgaccgg gagtctatct ctgttactgt gcaagaggta 180
actcctagag ctggtggagc actgattgca ctttatgaac gtgctgtggg gatttatgct 240
tctttggtaa atatcaatgc ctatcatcag cctgggtgtg a 281

<210> 296
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 296

ccggaacact gtgggttaaag aaaatccagc agcattgctt gcattatgtt ggtattgggc 60
atcagaaggg ataggcaata aggatatggt tgtacttcct tacaaggata gtttgttgc 120
tttgagtaga tatttgcaac aacttgtcat ggaatctctt gggaaagaat ttgatctgga 180
tggcaaccgg gtaaatacaag ggctatctgt atatggaaac aaaggaagca ctgaccagca 240
cgcttacatt cagcagctga gag 263

<210> 297
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 297

cggacgcgtg gtgctagctg gtgcagcttt aatggatgag gaaacccgga acactgtggt 60

taaagaaaat ccagcagcat tgcttgcat atgttgctat tgggcatcag aagggatagg 120
 caataaggat atgggtgtac ttccttaca ggatagtttg ttgcttttga gtagatattt 180
 gcaacaactt gtcattggaat ctcttgggaa agaatttgat ctggatggca accgggtaaa 240
 tcaagggcta tctgtatatg gaaacaaagg aagcactgac cagcacgctt acattcagca 300

<210> 298
 <211> 313
 <212> nucleic acid
 <213> Zea mays

<400> 298

cccacgcgtc cgcccacgcg tccgggggtat tgatatcaag gaaatgctag ctggtgcagc 60
 tttaatggat gaagaaaccc ggaacactgt ggtaaagaa aatccagcag cattgcttgc 120
 attatgttgg tattgggcat cagaaggat aggcaataag gatatggttg tacttcctta 180
 caaggatagt ttgttgcttt tgagtagata ttgcaacaa cttgtcatgg aatctcttgg 240
 gaaagaattt gatctggatg gcaaccgggt aaatcaagg ctatctgtat atggaaacaa 300
 aggaagtact gac 313

<210> 299
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 299

gatagtttgt tacttttgag tagatatttg cctatccctt ccgatgccca ataccagcag 60
 cattgcttgc attatgttgg tattgggcat cggaaggat aggcaaaaag gatatggttg 120
 tgcttcctta taaggatagt ttgttacttt tgagtagata ttgcaacaa cttgtcatgg 180
 gatctcttgg aaaagaattc gacctggatg gcaaccgtgt taaacaagg ctaactgtat 240
 atggtaacaa aggaagcact gaccagcatg cttacattca gcagctgaga gaaggtgt 298

<210> 300
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 300

gaggtcttgc gtgacaggcc tgctgggtcat gattggggagc ttgaacctgg agtcacgtgt 60
 ggtgactatt tgtttgggat gttgcaggga acccggttctg ctctttatgc aaatgaccgg 120
 gagtctatct ctgttacgtg caagaggtaa ctccatagagc tgttggagca ctgatttcac 180
 tttatgaacg tgctgtgggg atttatgctt ctttggtaaa tatcaatgcc tatcatcagc 240
 ctggtgttga ggctgggaaa aaggcagcag gaga 274

<210> 301
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 301

cagctgcatt gcagggtatt gatatcaagg aaatgctagc tgggtgcagct ttaatggatg 60
 aggaaacccg gaacactgtg gttaaagaaa atccagcagc attgcttgca ttatgttggt 120
 attgggcatc agaaggata ggcaataagg atatggttgt acttccttac aaggatagtt 180
 tgttgctttt gagtagatat ttgcaacaac ttgtcatgga atctcttggg aaagaatttg 240
 atctggatgg caaccgggta aatcaaggct atctgtatat ggaa 284

<210> 302
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 302

cggacgcgtg gtgctagctg gtgcagcttt aatggatgag gaaacccgga aactgttggt 60
 taaagaaaat ccagcagcat tgcttgcatt atactggtat tgggcatcag aaggataggt 120
 caataaggat atggttgtac ttccttacaa ggatagtttg ttgcttttga gtagatattt 180
 gcaacaactt gtcattggaat ctcttgggaa agaatttgat ctggatggca accgggtaaa 240
 tcaagggcta tctgtatatg gaaacaaagg aagcactgac cagcacgctt acattcagca 300
 gctgag 306

<210> 303
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 303
 cccacgcgtc cgccccacgcg tccgccccacg cgtccgcgag gtcttgcggtg acaggcctgc 60
 tgggtcatgaa tgggagccttg aacctggagt cacatgtggt gactatattgt ttgggatggt 120
 gcagggaaca cgttctgctc tttatgcaaa tgaccgtgaa tctatctctg ttactgtgca 180
 agaggtaact cctagagctg ttggagcact ggttgcactt tatgaacgtg ctgtggggct 240
 ttatgcttct ttggtaaata tcaatgccta t 271

<210> 304
 <211> 228
 <212> nucleic acid
 <213> Zea mays

<400> 304
 cggacgcgtg ggggtgtaca caacttcttt gttacgttta ttgaggtctt gcgtgacagg 60
 cctgctgggtc atgattggga gcttgaacct ggagtcacgt gtggtgacta tttgtttggg 120
 atgttgcagg gaaccgcgtt tgctctttat gcaaatagacc gggagtctat ctctgttact 180
 gtgcaagagg taactcctag agctgttgga gcaactgattg cactttat 228

<210> 305
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 305
 tgggtgtacac aacttctttg ttacttttat cgaggtcttg cgtgacaggc ctgctgggtca 60
 tgattgggag cttgaacctg gagtcacatg tggtgactat ttgtttggga tgttgcaggg 120
 aacacgttct gctctttatg caaatgaccg tgaatctatc tctgttactg tgcaagaggt 180
 aactcctaga gctgttgagg cactggttgc actttatgaa cgtgctgtgg ggctttatgc 240
 ttcttggtaa atatcaatgc tatcatcaac tgggtg 275

<210> 306
 <211> 203
 <212> nucleic acid
 <213> Zea mays

<400> 306

tgttgtactt ccttacaagg atagtttggt gcttttgagt agatatttgc aacaacttgt 60
catggaatct cttgggaaag aatttgatct ggatggcaac cgggtaaatc aagggtatc 120
tgtatatgga aacaaaggaa gcactgacca gcacgcttac attcagcagc tgagagaagg 180
tgacacaact tctttgttac ttt 203

<210> 307
<211> 285
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (151)
<223>

<400> 307
gttgtcaggg tattgatatc aaggaaatgc tagctgggtgc agctttaatg gatgaagaaa 60
cccggaacac tgtgggttaa gaaaatccag cagcattgct tgcattatgt tggatttggg 120
catcagaagg gataggcaat aaggatatgg ntgtacttcc ttacaaggat agtttggtgc 180
ttttgagtag atatttgcaa caacttgtca tggaatctct tgggaagaat tgatctggat 240
gcaaccggta aatcaaggct atctgatatg aaacaaagaa gactg 285

<210> 308
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 308
tatcttgctg tcaagccatc caccctgtat gatactaccg tgctgccgaa gtgtaattac 60
tcagttgttt ttgacatgcc aattgctgag ttctgacttg gcaaggttga gcataagtct 120
ttcttcattt tgggagttat cacagagcca gtttggcagt gctgtagttt tggttttacc 180
tactctttgt agaagaaaag tgaagagtgg atattatgga acaaaatata tacctacggc 240
agcacgcagc atgatgaaac atattta 267

<210> 309
<211> 240
<212> nucleic acid

<213> Zea mays

<400> 309

gtctcccccg accggcgatc gctatcgact tgtagcggaa gccatggcgt cggcagcgct 60
aatctgcggc acggagcagt ggaaggccct ccaggcgcac gtcggcgcca ttcagaagac 120
gcacctgcgc gacctgatgg ccgacgccga ccgatgcaag gcaatgacgg ctgagtatga 180
agggatcttt ctggattact cgagacagca ggcgactggt gaaacatgga gaagccctta 240

<210> 310

<211> 292

<212> nucleic acid

<213> Zea mays

<400> 310

caaaatccgg aggaactccc aggaggcgaa aagcagatcc gtctcccccg agccccgacc 60
ggcgatcgct atcgacttgt agcggaagcc atggcgtcgg cagcgctaata ctgcggcacg 120
gagcagtgga aggccctcca ggcgcacgtc ggcgcgattc agaagacgca cctgcgcgac 180
ctgatggccg acgccgaccg atgcaaggca atgacggctg agtatgaagg gatctttctg 240
gattactcga gacagcaggc gactggtgaa acatggagaa gctcttaaata tg 292

<210> 311

<211> 320

<212> nucleic acid

<213> Zea mays

<400> 311

ggcaagcaaa cgagcggcgg gacggctagc ccgcaataca aaatccggag gaactcccag 60
gaggcgaaaa gcagatccgt ctcccccgag ccccgaccgg cgatcgctat cgactttag 120
cggaagccat ggcgtcggca gcgctaatact gcggcacgga gcagtgggaag gccctccagg 180
cgcacgtcgg cgcgattcag aagacgcacc tgcgcgacct gatggccgac gccgaccgat 240
gcaaggcaat gacggctgag tatgaaggga tctttctgga ttactcgaga cagcaggcga 300
ctggtgaaac catggagaag 320

<210> 312

<211> 278

<212> nucleic acid

<213> Zea mays

<400> 312

caccgtcttc cggccgtcca ccgtttccag cacacagggg aaaggcaagc aaacgagcgt 60

ggggacgggt agcccgcaat acaaaatccg gaggaactct caggaggcga aaagcagatc 120

tgtctcccc gaccggcgat cgctatcgac ttgtagcgga agccatggcg tcggcagcgc 180

taatctgcgg cacggagcag tggaaggcac tccaggcgca cgtcggcgcg attcagaaga 240

cgcaactgcg cgacctgatg gccgacgccg accgatgc 278

<210> 313

<211> 105

<212> nucleic acid

<213> Zea mays

<400> 313

caaaatccgg aggaactccc aggaggcgaa aagcagatcc gtctcccccg agccccgacc 60

ggcgatcgct atcgacttgt agcggaagcc atggcgtcgg cagcg 105

<210> 314

<211> 267

<212> nucleic acid

<213> Zea mays

<400> 314

accgatcaa gctgtgggag cgctacgtcg agtgggtcta ccagcacaag gagctcggca 60

tcttcgtcga cgtcagccgg atggggttca cggaggagtt cctgcggcag atggagccgc 120

ggatgcagca ggccttcgtc gacatgcggg agctcgagaa gggcgccatc gccaaacccg 180

acgagggtcg catggtgggc cactactggc tccgcgaccc ggccctcgct cccaactcct 240

tcttcgggaa caagatcgag accgcac 267

<210> 315

<211> 325

<212> nucleic acid

<213> Zea mays

<400> 315

tgccatatto tcaggcaactt gagaagttgg caccacatat acagcagctt agcatggaga 60

gtaacgggaa ggggtgtttcc attgatggcg cccaactttc ctttgagaca ggtgaaattg 120
 attttgggtga acctcgaact aatggccagc acagcttcta tcaattaatc catcagggaa 180
 gggttatccc ttgcgacttt attgggtgttg ttaaaagtca gcagcctggt tacttgaaag 240
 gggaaactgt gagtaatcat gatgagctta tgtccaattt ctttgcccaa cctgatgctc 300
 ttgcttatgg aaagactcct gaaca 325

<210> 316
 <211> 316
 <212> nucleic acid
 <213> Zea mays

<400> 316

tccagctagg gcaatattgc catattctca ggcacttgag aagttggcac cacatataca 60
 gcagcttagc atggagagta acgggaaggg tgtttccatt gatggcgccc aactttcctt 120
 tgagacaagt gaaattgatt ttggtgaacc tggaactaat ggccagcaca gcttctatca 180
 attaatccat cagggaaggg ttatcccttg cgactttatt ggtgttggtta aaagtcagca 240
 gcctgtttac ttgaaagggg aaactgtgag taatcatgat gagcttatgt ccaatttctt 300
 tgcccaacct gatgct 316

<210> 317
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (24)
 <223>

<400> 317

atcaaagaca ttcacaacag ctgnaaacia tgttaaatgc tcgaactctt aaggagtggg 60
 tcgtttcttc tcttgggcca caggctgttg ccaaacatat gattgctgtc agcactaatc 120
 ttaagcttgt gaaggagttt ggaattgacc caaacaatgc ttttgctttt tgggactggg 180
 ttggcgggcg ttatagtgtt tgcagtgtg ttggcgttct gccattatct cttcagtatg 240
 gctttccaat tgtccagaaa tttttggagg gagcttccag tatcgacaac cacttctact 300

<210> 318
 <211> 334
 <212> nucleic acid
 <213> Zea mays

 <400> 318

 ctcatgatga gcttatgtcc aatttccttg cccaacctga tgctcttgct tatggaaaga 60
 ctctgaaca gttgcacagt gagaaagttc cagataatct tatccctcat aagactttta 120
 agggcaaccg gccatcacta agtttgcttc tgcctacact atctgcatat gaggttggac 180
 agcttttata catctatgag caccggattg cagttcaggg cttcatatgg ggaattaact 240
 catttgacca ctagggagtg gagctaggga agtcactcgc ttctcaagtg aggaaacagc 300
 tgcatggaac ccggatggaa ggacacctgt tgag 334

<210> 319
 <211> 279
 <212> nucleic acid
 <213> Zea mays

 <400> 319

 ggtgaacctg gaactaatgg ccagcacagc ttctatcaat taatccatca gggaaggggtt 60
 atcccttgcg actttattgg tggtgttaaa agtcagcagc ctgtttactt gaaaggggaa 120
 actgtgagta atcatgatga gcttatgtcc aatttccttg cccaacctga tgctcttgct 180
 tatggaaaga ctctgaaca gttgcacagt gagaaagttc cagaaaatct tatccctcat 240
 aagactttta agggcaaccg gccatcacta agtttgctt 279

<210> 320
 <211> 274
 <212> nucleic acid
 <213> Zea mays

 <400> 320

 tgcaaagtgt gatccagttg acgttgacag aagcattaaa gatttggatc cagaaaccac 60
 tctggtggtg gttgtatcaa agacattcac aacagcggaa acaatgttaa atgctcgaac 120
 tottaaggag tggatcgttt cttctcttgg gccacaggct gttgccaaac atatgattgc 180
 tgtcagcact aatcttaagc ttgtgaagga gtttgggaatt gacccaaaca atgcttttgc 240
 cttttgggac tgggttggcg gccgttatag tggt 274

<210> 321
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (73), (87), (93), (219), (241), (250), (255)
 <223> unsure at all n locations

<400> 321

gccacaggct gttgccaaac atatgattgc tgtcagcact aatcttaagc ttgtgaagga 60
 gtttggaatt ganccaaaca atgcttntgc ctnttgggac tgggttggcg gccgttatag 120
 tgtttgcagt gctgttggcg ttctgccatt atctcttcag tatggcttgc caattgtcca 180
 gaaatTTTTg gagggagctt ccagcattga caaccactnc tactcatctt catgtgagaa 240
 naatataccn gtacntcttg gtgctgagtg tgtggaatgt ttc 283

<210> 322
 <211> 269
 <212> nucleic acid
 <213> Zea mays

<400> 322

gccacaggct gttgccaaac atatgattgc tgtcagcact aatcttaagc ttgtgaagga 60
 gtttggaatt gacccaaaca atgcttttgc cttttgggac tgggttggcg gccgttatag 120
 tgtttgcagt gctgttggcg ttctgccatt atctcttcag tatggctttc caattgtcca 180
 gaaatTTTTg gagggagctt ccagcattga caaccacttc tactcatctt catttgagaa 240
 aaatataccg tacttcttgg tttgtgag 269

<210> 323
 <211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 323

agaagtggat catgggttgg agcaactgga aaaccgttga caaatgttgt gtcagttgga 60
 ataggtggta gctttcttgg ccctctatct gtgcatactg cactccagac cgatccagaa 120

ctgttggagc actggttgca ctttatgaac gtgctgtggg gctttatgct tctttggtaa 360
 atatcaatgc ctatcatcaa cctggtgttg aggctgggaa aaaggcagca ggagaagtgt 420

<210> 333
 <211> 355
 <212> nucleic acid
 <213> Zea mays

<400> 333

agttcttgcg gtcaagcaat caaccccgta tgatacaacc gtgctgccga aggtgtaatt 60
 acccagttgt ttttgacatg ccaattgctg agttctgact tggcaagggt gagcataagt 120
 ctttcttcat ttgggagtta tcacagagcc agtttggcag tgctgtagtt ttggttttac 180
 ctactctttg tagaagaaaa gtgaagagtg gatattatgg aacaaaatat atacctacgg 240
 cagcacgcag catgatgaaa catatttaaa aaatttgggt gctctaccac atgcccgtagg 300
 aataaaacgg atgtaaactc agtgcaaaaa aaaaaaaaaa aaaaaaaaaac aaaaa 355

<210> 334
 <211> 376
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (351)
 <223>

<400> 334

aacgagcggc gggacggcta gcccgcata caaatccgg aggaactccc aggaggcgaa 60
 aagcagatcc gtctcccccg agccccgacc ggcgatcgt atcgacttgt agcggaagcc 120
 atggcgctcg cagcgcta atctgcggcac gagcagtgga aggccctcca ggcgcacgtc 180
 ggcgcgattc agaagacgca cctgcgcgac ctgatggccg acgccgaccg atgcaaggca 240
 atgacggctg agtatgaagg gatctttctg gattactcga gacagcaggc gactggtgaa 300
 accctggaga agctccttaa atgggctgac gctgcgaagc tcaaggagaa ngatgagaag 360
 atgtttaaag gtgaaa 376

<210> 335

<211> 451
 <212> nucleic acid
 <213> Zea mays

<400> 335

ccgtatatag tgtttgcagt gctggtggcg ttctgccatt atctcttcag tatggctttc 60
 caattgtcca gaaatTTTTg gagggagctt ccagcattga caaccacttc tactcatctt 120
 catttgagaa aaatatacct gtacttcttg gtttgctgag tgtgtggaat gtttcatttc 180
 ttggttatcc agctagggca atattgccat attctcaggc acttgagaag ttggcaccac 240
 atatacagca gcttagcatg gagagtaacg ggaaggggtgt ttccattgat ggcgccaac 300
 tttcctttga gacaggtgaa attgattttg gtgaacctgg aactaatggc cagcacagct 360
 tctatcaatt aatccatcaa ggaaggggta tcccttgcca ctttattggt gttgttaaaa 420
 gtcagcagcc tgtttacttg aaaagggaaa c 451

<210> 336
 <211> 453
 <212> nucleic acid
 <213> Zea mays

<400> 336

gtcatgcact ggagacgttg gcactacata tacagcagct tatcatggat agtaacgggg 60
 ggggtgtttc cattgatggc gcccaacttt cctttgagac aggtgaaatt gattttggtg 120
 aacctggaac taatggccag cacagcttct atcaattaat ccatcaggga agggttatcc 180
 cttgcgactt tattggtggt gttaaaagtc agcagcctgt ttacttgaaa ggggaaactg 240
 tgagtaatca tgatgagctt atgtccaatt tctttgcca acctgatgca cttgcttatg 300
 gaaagactcc tgaacagttg cacagtgaga aagttccaga aaatcttatc cctcataaga 360
 cttttaaggg caaccggcca tctaagtt tgcttctgcc tacactatcc gcatatgagg 420
 ttggacagct tttatccatc tatgagcacc gga 453

<210> 337
 <211> 419
 <212> nucleic acid
 <213> Zea mays

<400> 337

aaaatcaagc agttttcaga gactttttaga agtggatcat gggttggagc aactggaaaa 60
 ccgttgacaa atgttgtgtc agttggaata ggtggttagct ttcttggccc tctatttgtg 120
 catactgcac tccagaccga tccagaagca gcagaatgtg caaaaggccg gcaactgaga 180
 ttccttgcaa atgttgatcc agttgacgtt gcacgaagca ttaaagattt ggatccagaa 240
 accactctgg tgggtggttgt atcaaagaca ttcacaacag ctgaaacaat gttaaagtct 300
 cgaactotta aggagtggat cgtttcttct cttgggccac aggctgttgc caaacatatg 360
 attgctgtca gcactaatct taagcttgtg aaggagtttg gaattgaccc aaacaatgc 419

<210> 338
 <211> 460
 <212> nucleic acid
 <213> Zea mays

<400> 338

tcgatatgct gcaacggcag gaccaggact gggactcgcg ggccgacaca cgcctctaca 60
 tttcttgggtt atacagctag ggcaatattg ccatattctc aggcaattga gaagttggca 120
 ccacatatac agcagcttag catggagagt aacgggaagg gtgtttccat tgatggcgcc 180
 caactttcct ttgagacagg tgaaattgat tttggtgaac ctggaactaa tggccagcac 240
 agcttctatc aattaatcca tcagggaagg gttatccctt gcgactttat tgggtgttgtt 300
 aaaagtcagc agcctgttta cttgaaaggg gaaactgtga gtaatcatga tgagcttatg 360
 tccaatttct ttgcccaccc tgatgctctt gcttatggaa agactcctga acagttgcac 420
 agtgagaaaag ttccagaaaa tcttatccct cataagactt 460

<210> 339
 <211> 323
 <212> nucleic acid
 <213> Zea mays

<400> 339

gcgaagctca aggagaagat tgagaagatg tttaaagggtg aaaagataaa tagcacagag 60
 aacaggtcag tgcttcatgt agctctgagg gctccaagag atgcagtcac aaacagtgat 120
 ggggtgaatg tgggtccctga ggttcggagt gttaaagata aaatcaagca gttttcagag 180
 acttttagaa gtggatcatg gggtggagca actggaaaac cgttgacaaa tgttgtgtcg 240

gttggaatag gtggtagctt tcttgccct ctatttgtgc atactgcact ccagaccgat 300
ccagaagcag cagaatgtgc aaa 323

<210> 340
<211> 422
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (27), (32), (34), (47), (50), (65), (80), (94), (371), (389),
(391), (394)...(395), (399)
<223> unsure at all n locations

<400> 340

ccaaaactga gtctcattac aaatgtngat cnanttgacg ttgcacnaan cattaaagat 60
ttggnntccag aaaccacccn ggtgggtggt gtancaaaga cattcacaac agcggaaaca 120
atgttaaagt ctggaactct taaggagtgg atcgtttctt ctcttgggcc acaggctgtt 180
gccaacata tgattgctgt cagcactaat cttaagcttg tgaaggagt ttgaattgac 240
ccaaacaatg cttttgcctt ttgggactgg gttggcggcc gttatagtgt ttgcagtgt 300
gttggcggtc tgccattact cttcagtatg gctttccaat tgtccagaaa tttttggagg 360
gaacttccag ncattgacaa acaacttcna ntcnncctnc attttgagaa aaatatacct 420
gt 422

<210> 341
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 341

gccgcgcacc cctggcacga cctcgagatc ggtcctgaag ctccggccgt cttcaacgtc 60
gtcgtggaga tcaccaaggg gagcaagggt aagtagcagc tggacaagaa gacggggctc 120
atcaagggtg accggatcct ctactcgtcc gtcgtctacc ctcacaacta cggttcgtg 180
ccccggacgc tctgcgagga caacgacccc atggacgtcc tcgtgctcat gcaggaaccc 240
gtccttcccc gcgc 254

<210> 342

<211> 205
 <212> nucleic acid
 <213> Zea mays

 <400> 342

 tttgtttcct gctctggcca aattccagac aagaagaacg agaacaagga ggtggccgtc 60
 aacgacttcc tgcccgccgc cgctgcccgc gaagcatcca gtactccatg taaagtcgcc 120
 ctgctcattt atctcgtgga tgacttgaaa aaaaacgagg tttggattct gggactctgc 180
 attcgtacgt gttgacatgg atctt 205

<210> 343
 <211> 241
 <212> nucleic acid
 <213> Zea mays

 <400> 343

 tcgacatgtg tgaatatgga gcgtgtctga cgatccttcc ggtgcgcgtc cgtccgtccg 60
 ttacgtacgt ggtgccgacg agcaggctcg ggagatcacc aaggggagca aggtgaagta 120
 cgagctggac aagaagacgg ggctcatcaa ggtggaccgg atcctctact cgtccgtcgt 180
 ctaccctcac aactacggct tcgtgccccg gacgctctgc gaggacaacg accccatgga 240
 c 241

<210> 344
 <211> 324
 <212> nucleic acid
 <213> Zea mays

 <400> 344

 ggttcctgcc ttgaacgaaa ggatactgtc atccatgtcc aggaggtctg ttgctgcaca 60
 cccttggcat gatctggaga taggtcctgg tgcctcaacc atattcaact gcgtaaggcc 120
 accctgtcat gcttgactgg tcctcttgtg atatgttcat gttaatagca tgatgtcttt 180
 tgttctattg gaaaataaaa agtctccctg gactctaaaa tcaatgcctg tgaacacatg 240
 aactgtttgt gtcacccatg ttccctctgt ccttggcact ttctgatgca tgctcaaatg 300
 cttaagaaag actcatagaa gcga 324

<210> 345

<211> 123
 <212> nucleic acid
 <213> Zea mays

 <400> 345

 ctccgcgcca gggccatcgg cctcatgcct atgatagatc agggagagaa ggacgacaag 60
 atcatcgcgcg tctgcgcgca cgacccccgag taccgccact acaacgacat cagcgagctc 120
 tcc 123

<210> 346
 <211> 286
 <212> nucleic acid
 <213> Zea mays

 <400> 346

 ggccgctcgc ccacccccgca ctgcctgtc gcctcttctc gctttcgcca ccggggcagc 60
 gctccggtga gtggcgaagg gccctcccg gctcccgctt ccctctgcca tggctggacc 120
 tgctgttctc aatgagcgta tcctttcttc catgtcccag aaacatgttg ctgctcaacc 180
 atagcatgat ttggagatag gaccaggggc tcctgaattc ttcaattgtg tggttgagat 240
 tcctagaggc agcaagggtta agtacgagtt ggacaaggca tctggt 286

<210> 347
 <211> 289
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (177), (179)
 <223> unsure at all n locations

 <400> 347

 cttgcagggg gagaaggacg acaagatcat cgccgtctgc gccgacgacc ccgagtaccg 60
 ccactacaac gacatcagcg agctctcccc tcaccgcctc caggagatcc gccgcttctt 120
 tgaagaactgt acgcgcgctt gctctctctc tctctctctg ggggcgcgct ttctggngnc 180
 tctctctctc tctctatctc tcggcgctcg ctgtgtgcgc gcgcggtgct ctgtgagcgc 240
 gcgcgccccct ctgtatgagt gcgtgtgtgg gtgttgtgtc tcgcgctct 289

<210> 348
 <211> 96
 <212> nucleic acid
 <213> Zea mays

 <400> 348

 ggaggtccgt agctgctcat ccgtggcatg atcttgagat cggtcctgat gtcctgctg 60
 tttccgaatg ttgttggtca gatcaciaaag ggaagc 96

<210> 349
 <211> 199
 <212> nucleic acid
 <213> Zea mays

 <400> 349

 tagcgagtaa tcggatcgtc aggagtcctg agtgtcatcc gggatgatct tgagatcggt 60
 ctgatgctct gctgttatca atgttggtgt tgagatcaca aagggaagca acataaaata 120
 tgagctcgac aaaaaactg gactgattaa ggttgatcga gtcctgcact catcagttgt 180
 ataccacac aattatggt 199

<210> 350
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 350

 agcgacacgg ttggagacc attcaaagaa gtacattgag actgggtgcc ttggtggcaa 60
 aggcagttag tcccataagg ctgcggttac agcgacacg gttggagacc cattcaaaga 120
 cactgcagga ccacgctgc acgttcttat caagatgctc gccacgatca cactggtcat 180
 ggctcccata ttcttgat taaccaacca gatttatcaa gcttgccatt aaccctgcgg 240
 agatgtatct atgcgacttg tagatgaggt gtttacctgc atgt 284

<210> 351
 <211> 132
 <212> nucleic acid
 <213> Zea mays

 <400> 351

 gcactgagaa ctcgatcgct ggctagaaca caggtctctc attcacttcc atgcgctccg 60

tggccatcgc cgtccccgac cgcagcgcag gactgaggat aaatgaagaa gttaagggtg 120
ctgcttctgc tg 132

<210> 352
<211> 333
<212> nucleic acid
<213> Zea mays

<400> 352

gccaccgata gctcctctcc actttccaca ttccagttcc actccgcctc cgctgccggt 60
cgccgactcc gaaactccga cagtccgacc acaaggctct gtgcgggatc cacagaagga 120
tgagtgaaga ggataagact gctgcttctg ctgagcagcc gaagagggcc cctaagctca 180
atgaaaggat cctctcttct ctgtccagga ggtccgtagc tgctcatcca tggcatgatc 240
ttgagatcgg tcctgatgct cctgctgttt tcaatgttgt tgttgagatc acaaagggaa 300
gcaaagttaa atatgagctt gacaagaaaa ctg 333

<210> 353
<211> 340
<212> nucleic acid
<213> Zea mays

<400> 353

ctccgctgcc ggtcgccgac tccgaaactc cgacagtccg accacaagga tccacagaag 60
gatgagtgaaggaggataagg ctgctgcttc tgctgagcag ccgaagaggg cccctaagct 120
caatgaaagg atcctctctt ctctgtccag gaggtccgta gctgctcatc cgtggcatga 180
tcttgagatc ggctctgatg ctctgctgt tttcaatgtt gttgttgaga tcacaaaggg 240
aagcaaagtt aaatatgagc tcgacaagaa aactggactg attaagggtg atcgagtcct 300
gtactcatca gttgtatacc ctcacaatta tggttcgtcc 340

<210> 354
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 354

gccaccgata gctcctctcc actttccaca ttccagttcc actccgcctc cgctgccggt 60

cgccgactcc gaaactccga cagtccgacc acaagaagga tgagtgaaga ggataagact 120
 gctgcttctg ctgagcagcc gaagagggcc cctaagctca atgaaaggat cctctcttct 180
 ctgtccagga ggtccgtagc tgctcatcca tggcatgata ttgagatcgg tcctgatgct 240
 cctgctgttt tcaatgttgt tgttgagatc acaaagggaa gcaaagttaa atatgagctt 300
 gacaagaaaa ctggactgat ta 322

<210> 355
 <211> 357
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (6)
 <223>

<400> 355

ccccancgat cgctcctctc cactttccac attccagttc caacacgcct ccgctgcagg 60
 tcgccgactc cgaaactccg acagtccgac cacaaggtct tgtgcgggat ccacagaagg 120
 atgagtgaag aggataagac tgctgcttct gctgagcagc cgaagagggc ccctaagctc 180
 aatgaaagga tcctctcttc tctgtccagg aggtccgtag ctgctcatcc atggcatgat 240
 cttgagatcg gtctgatgc tcctgctgtt ttcaatgttg ttgttgagat cacaaagggg 300
 agcaaagtta aatatgagct tgacaagaaa actggactga ttaagggtga tcgagtc 357

<210> 356
 <211> 309
 <212> nucleic acid
 <213> Zea mays

<400> 356

accaggggtga aaaggatgac aagataatag cagtctgtgc tgatgatcct gaatatcgtc 60
 actacaacga catcagttag ctgtctctc atcgctgca agagatcaag cggttctttg 120
 aagattataa gaagaatgag aataaagagg ttgctgtcga tgcattcttg cctgcgacca 180
 cagctcgaga ggccattcag tactccatgg atctgtatgc gcagtatatt ttgcaaagct 240
 tgaggcagta gattggaagc aactatattat ctgggcgtct tggaatgagt gtgattttaa 300

taagtcaaa

309

<210> 357
<211> 312
<212> nucleic acid
<213> Zea mays

<400> 357

caaagttaaa tatgagcttg acaagaaaac tggactgatt aagggttgatc gagtcctgta 60
ctcatcagtt gtataccctc acaattatgg ttctgttcca aggactcttt gtgaagacaa 120
tgacccaatg gatgtgtag tctgatgca ggagcctgtt gttcctgggt cgttcctgcg 180
agcaagagca atcggcctta tgctcatgat tgaccagggt gaaaaggatg acaagataat 240
agcagtctgt gctgatgatc ctgaatatcg tcaactacaac gacatcagtg agctgtctcc 300
tcatcgctg ca 312

<210> 358
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 358

tcgacagtcc gaccacaagg tcttgtgcgg gatccacaga aggatgagtg aagaggataa 60
gactgctgct tctgctgagc agccgaagag ggcccctaag ctcaatgaaa ggatcctctc 120
ttctctgtcc aggaggtccg tagctgtctca tccatggcat gatcttgaga tcggtcctga 180
tgctcctgct gttttcaatg ttgttggtga gatcaciaag ggaagcaaag ttaaataatga 240
gcttgacaag aaaactggac tgattaaggt tgatcgagtc ctgtactcat cagttgta 298

<210> 359
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 359

gcctccgctg ccggtcgccg actccgaaac tccgacagtc cgaccacaag gatccacaga 60
aggatgagtg aagaggataa ggctgctgct tctgctgagc agccgaagag ggcccctaag 120
ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg tagctgtctca tccgtggcat 180

gatcttgaga tcggtcctga tgctcctgct gttttcaatg ttgttggtga gatcacaaag 240

ggaagcaaag ttaaatatga gctcgacaag aaaactggac tgattaaggt tgcgcga 297

<210> 360
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 360

ctccactttc cacattccag ttccactccg cctccgctgc cggtcgccga ctccgaaact 60

ccgacagtcc gaccacaagg tcttggtcgg gatccacaga aggatgagtg aagaggataa 120

gactgctgct tctgctgagc agccgaagag ggccccctaag ctcaatgaaa ggatcctctc 180

ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 240

tgctcctgct gttttcaatg ttgttggtga gatcacaaag ggaagca 287

<210> 361
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 361

gagcactttc cacattccag ttccactccg cctccgctgc cggtcgccgt ctccgagact 60

ccgacagtcc gaccgcaagg tcttggtcgg gatccacaga aggatgagtg aagaggataa 120

gactgctgct tctgctgagc agccgaagag ggccccctaag ctcaatgaaa ggatcctctc 180

ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 240

tgctcctgct gttttcaatg ttgttggtga gatcacaaag gg 282

<210> 362
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 362

ttaagggtga tcgagtcctt tactcatcag ttgtataccc tcacaattat ggtttcattc 60

caaggactac ttgtgaagac aatgacccaa tggatgtgtt ggtcctgatg caggagcctg 120

ttgttctctg ttcgttctctg agagctagag caattggcct tatgcccattg attgaccagg 180

tagctgctca tccgtggcat gatcttgaga tccgtcctga tgctcctgct gttttcaatg 240
 ttgttggtga gatcacaaag ggaggcaaag ttaaataatga gtcgacaag aa 292

<210> 366
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 366

ccactttcca cattccagtt ccactccgcc tccgtgccc gtcgccgact ccgaaactcc 60
 gacagtccga ccacaaggat ccacagaagg atgagtgaag aggataaggc tgctgcttct 120
 gctgagcagc cgaagagggc ccctaagctc aatgaaagga tcctctcttc tctgtccagg 180
 aggtccgtag ctgctcatcc gtggcatgat cttgagatcg gtccatgatgc tcctgctggt 240
 ttcaatggtg ttgttgagat cacaaa 266

<210> 367
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 367

ccacattcca gttccactcc gcctccgctg ccggtcggcg actccgaaac tccgacagtc 60
 cgaccacaag gatccacaga aggatgagtg aagaggataa ggctgctgct tctgctgagc 120
 agccgaagag ggccccctaa ctcaatgaaa ggatccctctc ttctctgtcc aggaggtccg 180
 tagctgctca tccgtggcat gatcttgaga tccgtcctga tgctcctgct gttttcaatg 240
 ttgttggtga gatcacaaag ggaagcaaag ttaaataatga gctc 284

<210> 368
 <211> 341
 <212> nucleic acid
 <213> Zea mays

<400> 368

ccaggttgct cctcatttcc actttccact gcgcctccgc tgcccatcgc cgtccccgac 60
 cgcagcgcag gactgaggat gagtgaagag gataaggctg ctgcttctgc tgagcagcct 120
 aagagggccc ctaagctcaa tgaaaggatc ctctcctctc tgtccaggag gtccgtagct 180

gctcatccat ggcgatgatct cgagatcggg cctgggtgctc ctgctgtatt caatgttggt 240
 gttgagatca caaaggggaag caaagtcata tacgagcttg acaagaaaac tggactgatt 300
 aagggtgatc gagtccttta ctcacagtt gtatacctca c 341

<210> 369
 <211> 269
 <212> nucleic acid
 <213> Zea mays

<400> 369

attccactcc gcctccgtgc cggtcgccga ctccgaaaact ccgacagtcc gaccacaagg 60
 tcttggtgcgg gatccacaga aggatgagtg aagaggataa gactgctgct tctgctgagc 120
 agccgaagag ggccccctaag ctcaatgaaa ggatcctctc ttctctgtcc aggaggtccg 180
 tagctgtca tccatggcat gatcttgaga tcggtcctga tgcctcctgct gttttcaatg 240
 ttgttggtga gacgccaaag ggaagcaaa 269

<210> 370
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 370

cctcacaatt atggtttcgt tccaaggact ctttgtgaag acaatgaccc aatggatgtg 60
 ttagtctga tgcaggagcc tggtgttcct gggtcgttcc tgcgagcaag agcaatcggc 120
 cttatgccc a tgattgacca ggggtgaaaag gatgacaaga taatagcagt ctgtgctgat 180
 gatcctgaat atcgtcacta caacgacatc agtgagctgt ctcctcatcg cctgcaagag 240
 atcaagcggg tcttt 255

<210> 371
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 371

ctcctctcca ctttccacat tccagttcca ctccgcctcc gctgccggtc gccgactccg 60
 aaactccgac agtccgacca caagaaggat gagtgaagag gataagactg ctgcttctgc 120

<400> 377
aagnaccacc gatcgctcct ctccactttc cacattccag ttccactcgg cctccgctgc 60
cggtcgccga ctccgaaact ccgacagtcc gaccacaagg tcttggtcgg gatccacaga 120
aggatgagtg aagaggataa gactgctgct tctgctgagc agccgaagag ggcccctaag 180
ctcaatgaaa ggatcctctc ttctctgtcc aggaggtcgg tagctgctca tccatggcat 240
gatcttgaga tcggctcctga tgctcctgct gttttcaatg ttgttggtga gatcacaaaag 300
gga 303

<210> 378
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 378
acgcctccgc tgccgatcgc cgtccccgac cgcagtgcag gactgaggat gagtgaagag 60
gataaggctg ctgcttctgc tgagcagcct aagagggccc ctaagctcaa tgaaaggatc 120
ctctcctctc tgtccaggag gtccgtagct gctcatccat ggcatgatct cgagatcggt 180
cctggtgctc ctgctgtatt caatgttggt gttgagatca caaaggggaag caaagtcaaa 240
tacgagcttg acaagaaaac tggactgatt aaggttgatc gagtccttta ctcatcagtt 300
gta 303

<210> 379
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 379
attccaagga ctctttgtga agacaatgac ccaatggatg tgttggtcct gatgcaggag 60
cctggtgttc ctggttcggt cctgagagct agagcaattg gccttatgcc catgattgac 120
cagggtgaaa aggatgacaa gataatagca gtatgtgctg acgatcctga ataccgtcac 180
tacaacgaca tcagcgagct gtctcctcac cgctgcaag agatcaagcg cttctttgaa 240
gattacaaga aaaacgagaa caaagaa 267

<210> 380
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 380

cctggtgctc ctgctgtatt caatgttggt gttgagatca caaaggggaag caaagtcaaa 60
 tacgagcttg acaagaaaac tggactgatt aagggtgatc gagtccttta ctcacagtt 120
 gtataccctc acaattatgg ttccattcca aggactcttt gtgaagacaa tgacccaatg 180
 gatgtgttgg tcctgatgca ggagcctgtt gttcctgggt cgttcctgag agctagagca 240
 attggcctta tgcccatgat tga 263

<210> 381
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 381

agcctccgct gccggtcgcc gactccgaaa ctccgacagt ccgaccacaa gcaggatgag 60
 tgaagaggat aagactgctg cttctgctga gcagccgaag agggccccta agctcaatga 120
 acggatcctc tcttctctgt ccaggagggt cgtagctgct catccatggc atgatcttga 180
 gatcggtcct gatgctcctg ctgttttcaa tgttggtgtt gagatcacia agggaagcaa 240
 agttaaatat gagcttgaca agaaaactgg act 273

<210> 382
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 382

gtagctgctc atccatggca tgatcttgag atcggtcctg atgctcctgc tgttttcaat 60
 gttgttggtg agatcaacag cgaagcaaag ttaaataatga gcttgacaag aaaactggac 120
 tgattaaggt tgatcgagtc ctgtactcat cagttgtata cctcacaat tatgggttctg 180
 ttccaaggac tctttgtgaa gacaatgacc caatggatgt gttagtcctg atgcaggagc 240
 ctgttggtcc tggttcgttc ctggagcaag agcatc 276

<210> 383
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 383

ccactttcca ctgcacctcc gctgcccata gccgtccccg accgcagcgc aggactgagg 60
 atgagtgaag aggataaggc tgctgcttct gctgagcagc ctaagagggc ccctaagctc 120
 aatgaaagga tcctctcctc tctgtccagg aggtccgtag ctgctcatcc atggcatgat 180
 ctcgagatcg gtccctgggtgc tcctgctgta ttcaatgttg ttgttgagat cacaaagggg 240
 agcaaagtca aatacgagct tgacaagaaa actggactga tta 283

<210> 384
 <211> 251
 <212> nucleic acid
 <213> Zea mays

<400> 384

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 tgcgggatcc acagaaggat gagtgaagag gataagactg ctgcttctgc tgagcagccg 120
 aagagggccc ctaagctcaa tgaaaggatc ctctcttctc tgtccaggag gtccgtagct 180
 gctcatccat ggcattgatct tgagatcggt cctgatgctc ctgctgtttt caatgttggt 240
 gttgagatca c 251

<210> 385
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 385

ctttccactc cgctccgct gccgatcgcc gtccccgacc gcagtgcagg actgaggatg 60
 agtgaagagg ataaggctgc tgcttctgct gaggcagcta agagggcccc taagctcaat 120
 gaaaggatcc tctctctctc gtccaggagg tccgtagctg ctcattcatg gcatgatctc 180
 gagatcgggtc ctggtgctcc tgctgtattc aatgttggtg ttgagatcac aaaggggaagc 240
 aaagtcaaat acgagcttga caa 263

tttcattcca aggactcttt gtgaagacaa tgaccaaatg gatgtgttgg tcctgatgca 180
ggagcctggt gttcctgggt cgttcctgag agctagagca a 221

<210> 392
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 392

gtagtgacga tattcaggat catcagcaca gactgctaga gatcaagcgg ttctttgaag 60
attataagaa gaatgagaat aaagagggtg ctgtcgatgc attcttgcct gcgaccacag 120
ctcgagaggc cattcagtag tccatggatc tgtatgcgca gtatattttg caaagcttga 180
ggcagtagat tggaagcaac tatttafctg ggcgctcttg aatgagtgtg attttaataa 240
gtcaaaacac tgatattgtg tgc 263

<210> 393
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 393

agcggagaaac gacccacagg tgacgacatg cttgctctgc tggactgtta ctctgagtaa 60
gactgctgct tctgctgagc agccgaagag ggcccctaag ctcaatgaaa ggatcctctc 120
ttctctgtcc aggagggtcc tagctgctca tccatggcat gatcttgaga tcggtcctga 180
tgctcctgct gttttcaatg ttgttggtga gatcacaaag ggaagcaaag ttaaataatga 240
gcttgacaag aaaactgg 258

<210> 394
<211> 209
<212> nucleic acid
<213> Zea mays

<400> 394

caagaaaact ggactgatta aggttgatcg agtcctgtac tcatcagttg tataccctca 60
caattatggt ttcgttccaa ggaatctttg tgaagacaat gacccaatgg atgtgttagt 120
cctgatgcag gagcctgttg ttcttggttc gttcctgcga gcaagagcaa tcggccttat 180

209

<400> 395

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actgagggatg	agtgaagagg	ataaggctgc	tgctttctgct	gagcagccta	agagggcccc	120
taagctcaat	gaaaggatcc	tctcctctct	gtccaggagg	tccgtagctg	ctcatccatg	180
gcatgatctc	gagatcggtc	ctggtgctcc	tgctgtattc	aatgttggtg	ttgagatcac	240
aaggggaagc	caagtcaata	cgagcttgac	aaga			274

<400> 396

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tgcccatgat	tgaccagggg	gaaaaggatg	acaagataat	agcagtatgt	gctgatgatc	120
ctgaataaccg	tactacaac	gacatcagcg	agctgtctcc	tcaccgctg	caagagatca	180
agcgcttctt	tgaagattac	aagaaaaacg	agaacaaaga	agtcgcagtt	gatgcattct	240

<400> 397

tccgcctccg	ctgccgatcg	cgcgtcccca	ccgcagtgca	ggactgagga	tgagtgaaga	60
ggataaggct	gctgcttctg	ctgagcagcc	taagaggggca	cctaagctca	atgaaaggat	120
cctctcctct	ctgtccagga	ggtccgtagc	tgctcatcca	tggcatgata	tcgagatcgg	180
tcctggtgct	cctgctgtat	tcaatgttgt	tgttgagata	acaaagggaa	gcaaagtcaa	240
atacgagctt	gacaagataa	ctggactgat	taaggttgat	cgaagtcctt	actcatcagt	300

313

<400> 398

caatgtt 187

<400> 399

gac 243

<400> 400

gtgcaaattct tgggggttgag a 261

<210> 401
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 401

gcgcctccgc tgcccatcgc cgtccccgac cgcagcgcag gtgaggatcc aaccccaaca 60
 aacttccagg cgacggactg aggatgagtg aagaggataa ggctgctgct tctgctgagc 120
 agcctaagag ggccccctaag ctcaatgaaa ggatcctctc ctctctgtcc aggagggtccg 180
 tagctgctca tccatggcat gatctcgaga tcggtcctgg tgctcctgct gtattcaatg 240
 ttgttggtga gatcacaaaag ggaagccaag tcaaatacga gcttt 285

<210> 402
 <211> 222
 <212> nucleic acid
 <213> Zea mays

<400> 402

cccacgagtc cgcccacgcg tccgaaagag gttgctgacg atgcattctt gcctgcgacc 60
 acagctcgag aggccattca gtactccatg gatctgtatg cgcagtatat ttgcaaagc 120
 ttgaggcagt agattggaag caactattta tctgggcgtc ttggaatgag tgtgatttta 180
 ataagtcaaa acacttgata ttgtgagcaa ttcgggggggt tg 222

<210> 403
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 403

attggaagca actatattatc tgggcgtctt ggaatgagtg tgattttaat aagtcaaaac 60
 acttgatatt gtgtgcaaact cttgggggttg agaacaatgt cactagctgt gatttacttc 120
 tgtgacttgc attttttttc ttgttaaatt atgaataagc gaagtccata cgtctactgt 180
 gtggcttctt gctgggttca tcgtctaccc atgttcctca agcttgggaa catggggcct 240
 ttccccatth ccgtgtcttc catgcgaagt aaaatttatt tgtatac 287

<210> 404

<211> 176
 <212> nucleic acid
 <213> Zea mays

 <400> 404

 gggaagcaaa gtcaaatacg agcttgacaa gaaaactgga ctgattaagg ttgatcgagt 60
 cctttactca tcagttgtat accctcacaa ttatggtttc attccaagga ctctttgtga 120
 agacaatgac ccaatggatg tgttggctct gatgcaggag cctgttggtc ctgggtt 176

<210> 405
 <211> 151
 <212> nucleic acid
 <213> Zea mays

 <400> 405

 tccagttcca ctccgcctcc gctgccggtc gccgactccg aaactccgac agtccgacca 60
 caaggtcttg tgcgggatcc acagaaggat gagtgaagag gataagactg ctgcttctgc 120
 tgagcagccg aagagggccc ctaagctcaa t 151

<210> 406
 <211> 263
 <212> nucleic acid
 <213> Zea mays

 <400> 406

 gaacaaagaa gtcgcagttg atgcattctt gcccgcgaca acagctcaag aagccattca 60
 gtactccatg gacctgtatg cccagtatat ttgcaaagc ttgaggcagt agattgcaag 120
 caacaattta tctatcatgc gtcttgatc ggggcgtgat tttaataagc cgaatcgctt 180
 gctatattgc gaaccttggga attgagaaca gcgtcactag ctgtgattcg ctcctttctc 240
 gttaaattat catatgaata ggc 263

<210> 407
 <211> 237
 <212> nucleic acid
 <213> Zea mays

 <400> 407

 gcacgagaga agtcgcagtt gatgcattct tgcccgcgac aacagctcaa gaagccattc 60

agtactccat ggacctgtat gcccagtata ttttgcaaag cttgaggcag tagattgcaa 120
gcaacaattt atctatcatg cgtcttggat gggggcgtga ttttaataag ccaaategct 180
tgctatattg ggaaccttgg aattgagaac agcgtcacta gctgtgattc gctcctt 237

<210> 408
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 408

cggacgctgg gcgagtcctt tactcatcag ttgtataccc tcacaattat ggtttcattc 60
caaggacact ttgtgaagac aatgacccaa tggatgtgtt ggtcctgatg caggagcctg 120
ttgttcctgg ttcgttcctg agagctagag caattggcct tatgcc 166

<210> 409
<211> 237
<212> nucleic acid
<213> Zea mays

<400> 409

cagacgcgtg gccgctgcc atcgccgtcc ccgaccgcag cgcagggtgag gatccaaccc 60
caacaaaatt ccaggcgacg gactgaggat gagtgaagag gataaggctg ctgcttctgc 120
tgagcagcct aagagggccc ctaagctcaa tgaaaggatc ctctcctctc tgtccaggag 180
gtccgtagct gctcatccat ggcattgatc cgagatcggt cctgggtgctc ctgctgt 237

<210> 410
<211> 137
<212> nucleic acid
<213> Zea mays

<400> 410

gtagctgctc atccatggca tgatcttgag atcggtcctg atgctcctgc tgttttcaat 60
gttgttgttg agatcacaaa gggaagcaaa gttaaataatg agcttgacaa gaaaactgga 120
ctgattaagg ttaaccg 137

<210> 411
<211> 191
<212> nucleic acid

<213> Zea mays

<400> 411

acactgcacc tccgctgccc atcgccgtcc ccgaccgcag cgcaggacta gtatgaggat 60
aaggctgctg cttctgctga gcagcctaag agggccccta agctcaatga aaggatcctc 120
tcctctctgt ccaggaggtc cgtagctgct catccatggc atgatctcga gatcggtcct 180
ggtgctcctg c 191

<210> 412

<211> 136

<212> nucleic acid

<213> Zea mays

<400> 412

gtgttggtcc tgatgcagga gcctgttggt cctgggtcgt tcctgagagc tagagcaatt 60
ggccttatgc ccatgattga ccagggtgaa aaggatgaca agataatagc agtatgtgct 120
gacgatcctg aatacc 136

<210> 413

<211> 160

<212> nucleic acid

<213> Zea mays

<400> 413

acggcccacc tggaagccgg agagaatcga gcagagccac cgatcgctcc tctccacttt 60
ccacattcca gttccactcc gcctccgctg ccggtcgccg actccgaaac tccgacagtc 120
cgaccacaag gatccacaga aggatgagtg aagaggataa 160

<210> 414

<211> 155

<212> nucleic acid

<213> Zea mays

<400> 414

cgctcctctc cactctccac attccagttc cactccgcct ccgctgccgg tcgccgactc 60
cgatactccg acagtccgac cacaaggtct tgtgcgggat ccacagaagg atgagtgaag 120
aggataagac tgctgcttct gctgagcagc cgaag 155

<210> 415
 <211> 135
 <212> nucleic acid
 <213> Zea mays

<400> 415

ccaggttgct cctcatttcc actttccact gcggtccgc tgcccatcgc cgtccccgac 60
 cgcagcgcag gactgaggat gagtgaagag gataaggctg ctgcttctgc tgagcagcct 120
 aagagggcc ctaag 135

<210> 416
 <211> 186
 <212> nucleic acid
 <213> Zea mays

<400> 416

agagaatcga gcagagccac ccggtgctc ctcatttcca ctttccactc cgcctccgct 60
 gccgatcgcc gtccccgacc gcagtgcagg actgaggatg agtgaagagg ataaggctgc 120
 agcttctgct gagcagccta agaggggccc taagctcaat gaaaggatcc tctcctctct 180
 gtccag 186

<210> 417
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<400> 417

aaccgctccg ccacctcgcc actcgctct tctcgctctc gccaccgggc caggggaagg 60
 accatccgat cggatccgtc atggctggag ctgctgctct caatgagggt atcctttctt 120
 ccgtgtccga gaaaaatgtt gctgctcacc catggcatga tttggagata ggaccagagg 180
 ctctgcagt gttcaattgt gtggttgaga ttcctagagg cagcaagggt aagtatgagt 240
 tggacaagat atctggtctg atcaagggtg atcgtgtcct ttactcctct gttgtttacc 300
 cac 303

<210> 418
 <211> 290
 <212> nucleic acid

<213> Zea mays

<400> 418

ctcgaggccg ctccgccacc tcgccactcg cctctttctcg ctctcgccac cgggccaggg 60
aagggaccat ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggatcct 120
ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
agaggctcct gaagtgttca attgtgtggt tgagattcct agaggcagca aggttaagta 240
tgagttggac aagatatctg gtctgatcaa ggtggatcgt gtcctttact 290

<210> 419

<211> 309

<212> nucleic acid

<213> Zea mays

<400> 419

tggacagcag cagtgaactc gacgccgctc cgccacctcg ccactcgctt cttctcgctc 60
tcgccaccgg gccaggggaag ggaccatccg atcggtccg tcatggctgg agctgctgct 120
ctcaatgagg gtatcctttc ttccgtgtcc gagaaaaatg ttgctgctca cccatggcat 180
gatttggaga taggaccaga ggctcctgaa gtgttcaatt gtgtggttga gattcctaga 240
ggcagcaagg ttaagtatga gttggacaag atatctggtc tgatcaagggt ggatcgtgct 300
ctttactcc 309

<210> 420

<211> 258

<212> nucleic acid

<213> Zea mays

<400> 420

ctcgaggccg ctccgccacc tcgccactcg cctctttctcg ctctcgccac cgggccaggg 60
aagggaccat ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggatcct 120
ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
agaggctcct gaagtgttca attgtgtggt tgagattcct agaggcagca aggttaagta 240
tgagttggac aagatatc 258

<210> 421

<211> 293
 <212> nucleic acid
 <213> Zea mays

 <400> 421

 tgcagcagtg aactcgaggc cgctccgcca cctcgccact cgctcttct cgctctcgcc 60
 accggggccag gtgaaggagc catccgatcg gctccgtcat ggctggagct gctgctctca 120
 atgaggggtat cctttcttcc gtgtccgaga aaaatgttgc tgctcaccca tggcatgatt 180
 tggagatagg accagaggct cctgaagtgt tcaattgtgt ggttgagatt cctagaggca 240
 gcaagggttaa gtatgagttg gacaagatat ctggtctgat caagggtggat cgt 293

<210> 422
 <211> 315
 <212> nucleic acid
 <213> Zea mays

 <400> 422

 gccctggaca gcagcagcga actcgaggcc gctccgccac ctcgccactc gcctcttctc 60
 gctctcgcca ccggggccagg ggcgggacca tccgatcggc tccgtcatgg ctggagctgc 120
 tgctctcaat gagggatatcc tttcttccgt gtccgagaaa aatgttgctg ctcacccatg 180
 gcatgatttg gagataggac cagaggctcc tgaagtgttc aattgtgtgg ttgagattcc 240
 tagaggcagc aagggttaagt atgagttgga caagatatct ggtctgatac aggtggatcg 300
 tgtcctttac tctc 315

<210> 423
 <211> 254
 <212> nucleic acid
 <213> Zea mays

 <400> 423

 ctcgaggcgc ctccgccacc tcgccactcg cctcttctcg ctctcgccac cggggccaggg 60
 aagggaacct ccgatcggct ccgtcatggc tggagctgct gctctcaatg agggtatcct 120
 ttcttccgtg tccgagaaaa atgttgctgc tcacccatgg catgatttgg agataggacc 180
 agaggctcct gaagtgttca attgtgtggg tgagattcct agaggcagca aggttaagta 240
 tgagttggac aaga 254

<210> 424
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 424

cgccccggag ccctggacag cagcagtga ctcgaggccg ctccgccacc tcgccactcg 60
 cctctttctcg ctctcgccac cgggccaggg aagggaacct ccgatcggct ccgtcatggc 120
 tggagctgct gctctcaatg agggatatct ttcttccgtg tccgagaaaa atgttgctgc 180
 tcacccatgg catgatttgg agataggacc agaggtctct gaagtgttca attgtgtggt 240
 tgagattcct agaggcagca aggtta 266

<210> 425
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 425

ggagccctgg acagcagcag tgaactcgag gccgtccgc cacctcgcca ctgcctctt 60
 ctgcctctcg ccaccggggc agggaaacga ccatccgatc ggctccgtca tggctggagc 120
 tgctgctctc aatgagggta tctttcttc cgtgtccgag aaaaatgttg ctgctcacc 180
 atgcattgat ttggagatag gaccagaggc tctgaagtg ttcaattgtg tggttgagat 240
 tcttagaggc agcaaggtta 260

<210> 426
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 426

gttgccatta tatcagcata ttggctgggg cagacctctg gcttggtgga cgagtctggc 60
 aacccaactg gtggtctttt tgggacagct gtagcaacaa tggggatgct tagcactgca 120
 gggatatgtt tcacccatgga catgtttggt cctatagctg acaacgctgg tggattgtt 180
 gagatgagcc agcagcctga aagtgtgagg gaaatcacag atgttctaga tgctgtgggc 240
 aacacaacta aagctactac gaaaggattt gccatagg 278

<210> 430
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 430

gctcgaggcc gctcgccacc ccgcactcgc ctgtagcctc ttctcgcttt cgccaccggg 60
 gcagcgctcc gccatggctg gacctgctgt tctcaatgag cgtatccttt cttccatgtc 120
 tcagaaacat gttgctgctc acccatggca tgatttggag ataggaccag gggctcctga 180
 attcttcaat tgtgtggttg agattcctag aggcagcaag gttaagtacg agttggacaa 240
 ggcatcttgt ctgatccagg tcgacgtgtt ctttattcct ctggtgg 287

<210> 431
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 431

cccacgcgtc cgcacactga tccggcctgg agcgcctggac agcagcagca gcagcagcat 60
 cgagctcgag gccgctccgc caccgcgcac tcgcctgtcg cctcttctcg ctttcgccac 120
 cggggcagcg ctccgccatg gctggacctg ctgtttctcaa tgagcgtatc ctttcttcca 180
 tgtcccagaa acatgttget gctcaccat ggcatgattt ggagatagga ccaggggctc 240
 ctgaattctt caattgtgtg gttgag 266

<210> 432
 <211> 239
 <212> nucleic acid
 <213> Zea mays

<400> 432

cccacgcgtc cgatcacact gatccggcct ggagcgcctg acagcagcag cagcagcagc 60
 atcgagctcg aggcgcctcc gccacccgc actcgctgt cgctcttct cgctttcgcc 120
 accggggcag cgtccgccca tggtggacc tgctgttctc aatgagcgta tcctttcttc 180
 catgtcccag aaacatgttg ctgctcacc atggcatgat ttggagatag gaccagggg 239

<210> 433
 <211> 211
 <212> nucleic acid
 <213> Zea mays
 <400> 433
 tgatccggcc tggagcgctg gacagcagca gcagcatcga gctcgaggcc gctccgccac 60
 cccgcactcg cctgtcgctt cttctcgctt tcgccaccgg ggcagcgctc cgccatggct 120
 ggacctgctg ttctcaatga gcgtatcctt tcttccatgt cccagaaaaca tgttgctgct 180
 caccatggc atgatttgga gataggacca g 211

<210> 434
 <211> 260
 <212> nucleic acid
 <213> Zea mays
 <400> 434
 gacagcagca gcagcagcag catcgagctc gaggccgctc cgccaccccg cactcgctg 60
 tcgcctcttc tagctttcgc caccggggca gcgtccgcc atggtggac ctgctgttct 120
 caatgagcgt atcctttctt ccatgtccca gaaacatgtt gctgtcacc catggcatga 180
 tttggagata ggtggttgag attcctagag gcagcaaggt taagtacgag ttggacaagg 240
 catctggtct gatcaagggtg 260

<210> 435
 <211> 376
 <212> nucleic acid
 <213> Zea mays
 <220>
 <221> unsure
 <222> (7)
 <223>
 <400> 435
 gctctencct caccgcctcc aggagatccg ccgcttcttc gaagactaca agaagaacga 60
 gaacaaggag gtggccgtca acgacttcct gcccgccgcc gctgccgcg aaccatccag 120
 tactccatgg acctgtacgg ccagtacatc atgcagaccc tgcggcggtg gagcgtgtcc 180
 taccagatcc catgcgagct gagctgacgc aagagcacag atcgacagaa tccttggtgt 240

acgctttgtg aagacagtga tcctttggat gtactggta taatgcagga gcctgttatc 180
ccaggctgtt tcctacgtgc gaaggccatc ggccttatgc cgatgattga tcagggagag 240
gcagatgaca agatcattgc agtgtgcgct gatg 274

<210> 439
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 439

caagggttaa tatgaacttg acaagaaaac tggactgatc aagggtggacc gtgtgctgta 60
ttcatcagtt gtttaccctc acaactatgg attcattcct cgcacgcttt gtgaagacag 120
tgatcctttg gatgtactgg ttataatgca ggagcctggt atcccaggct gtttcctacg 180
tgcgaaggcc atcggcctta tgccgatgat tgatcagggg gaggcagatg acaagatcat 240
tgcagtgtgc gctgatgatc ccgagtacag gcattacaat gatatcaagg ag 292

<210> 440
<211> 321
<212> nucleic acid
<213> Zea mays

<400> 440

ggcgcccgtc gtagaagccg tgaaggagac aggcaccttc cagaagggtc ctgccttgaa 60
cgaaaggata ctgtcatcca tgtccaggag gtctgttgct gcacaccctt ggcattgatct 120
ggagataggt cctggtgctc caaccatatt caactgcgtc attgagatac caaggggcag 180
ctagggttaa tatgaacttg acaagaaaac tggactgatc aagggtggacc gtgtgctgta 240
ttcatcagtt gtttaccctc acaactatgg attcattcct cgcacgcttt gtgaagacag 300
tgatcctttg gatgtactgg t 321

<210> 441
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 441

cacacccttg gcatgatctg gagataggct ctggtgctcc aaccatattc aactgcgtca 60

ttgagatacc aaggggcagc aagggttaaat atgaacttga caagaaaact ggactgatca 120
 aggtggaccg tgtgctgtat tcatcagttg tttaccctca caactatgga ttcattcctc 180
 gcacgctttg tgaagacagt gatccttttg atgtactggg tataatgcag gagcctgtta 240
 tcccaggtg tttcctacgt gcgaaggcca tcggcc 276

<210> 442
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 442

ctggactgat caaggtggac cgtgtgctgt attcatcagt tgtttaccct cacaactatg 60
 gattcattcc tcgcacgctt tgtgaagaca gtgatccttt ggatgtactg gttataatgc 120
 aggagcctgt tatcccaggc tgtttcctac gtgcgaaggc catcggcctt atgccgatga 180
 ttgatcaggg agaggcagat gacaagatca ttgcagtgtg cgctgatgat cccgagtaca 240
 ggcattacaa tgatatcaag gagtccccac ct 272

<210> 443
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (23)
 <223>

<400> 443

gatgtactgg ttataatgca gngcctgtt atcccaggt gtttcctacg tgcgaaggcc 60
 atcggcctta tgccgatgat tgatcaggga gaggcagatg acaagatcat tgcagtgtgc 120
 gctgatgatc ccgagtacag gcattacaat gatatcaagg agtccccacc tcaccgcttg 180
 gctgaaatca ggcgcttctt cgaggactac aagaagaatg agaacaagga gggttctgtg 240
 aatgactttc taccagcgag cgccgcttat 270

<210> 444
 <211> 245
 <212> nucleic acid

<213> Zea mays

<400> 444

gcacgagatt cattcctcgc acgctttgtg aagacagtga tcctttggat gtactgggta 60

taatgcagga gcctgttatc ccaggctgtt tcctacgtgc gaaggccatc ggccttatgc 120

cgatgattga tcagggagag gcagatgaca agatcattgc agtgtgcgct gatgatccccg 180

agtacaggca ttacaatgat atcaaggagc tcccacctca ccgcttggtc gaaatcaggc 240

gcttc 245

<210> 445

<211> 306

<212> nucleic acid

<213> Zea mays

<400> 445

ccgtgtgctg tattcatcag ttgtttaccc tcacaactat ggattcattc ctgcacgct 60

ttgtgaagac agtgatcctt tggatgtact ggttataatg caggagcctg ttatcccagg 120

ctgtttccta cgtgcgaagg ccatcggcct tatgccgatg attgatcagg gagaggcaga 180

tgacaagatc attgcagtgt gcgctgatga tcccgagtac aggcattaca atgatatcaa 240

ggagctccca cctcaccgct tggctgaaat caggcgcttc ttcgaggact acaagaagaa 300

tgagaa 306

<210> 446

<211> 310

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (281)

<223>

<400> 446

caggctgttt cctacgtgcg aagccatcgg cttatgccga tgattgatca gggagaggca 60

gatgacaaga tcattgcagt gtgcgctgat gatccccgagt acaggcatta caatgatatc 120

aaggagctcc cacctcaccg cttggctgaa atcaggcgct tcttcgagga ctacaagaag 180

aatgagaaca aggaggttgc tgtgaatgac tttctaccag cgagcgccgc ttatgaagcc 240

atacagcact ctatggacct gtatgctaca tacatcggtg naggcatgag gaggtaagat 300
tctgatggct 310

<210> 447
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 447

gttccaacca tattcaactg cgtcattgag ataccaaggg gcagcaaggt tagctatgaa 60
cttgacaaga aaactggact gatcaagggtg gaccgtgtgc tgtattcatc agttgtttac 120
cctcacaact atggattcat tcctcgcacg ctttgtgaag acagtgatcc tttggatgta 180
ctggttataa tgcaggagcc tgtcatccca ggctgtttcc tacgtgcgaa ggccatcggc 240
tttatgccga tgattgatca gggagaggca gat 273

<210> 448
<211> 310
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (143)
<223>

<400> 448

atgaactggt tgtgtcacc atgttcctct gtccttggc actttctgat gcatgctcaa 60
atgcttaaga aagactcata gaagcgactc ctattcctat gccaggatcat tgagatacca 120
aggggcagca aggttaaata tgnacttgac aagaaaactg gactgctcaa ggtggaccgt 180
gtgctgtatt catcagttgt ttaccctcac aactatggat tcattcctcg cacgctttgt 240
gaagacagtg atcctttgga tgtactgggt ataatgcagg agcctgttat cccaggctgt 300
ttcctacgtg 310

<210> 449
<211> 192
<212> nucleic acid
<213> Zea mays

<400> 449

gcatgatctg gagataggtc ctggtgctcc aaccatattc aactgcgtca ttgagatacc 60

aaggggcagc aaggttaaat atgaacttga caagaaaact ggactgatca aggtggaccg 120

tgtgctgtat tcatcagttg tttaccctca caactatgga ttcattcctc gcacgctttg 180

tgaagacagt ga 192

<210> 450

<211> 225

<212> nucleic acid

<213> Zea mays

<400> 450

gggtgatggc cccgagtgcg ggcgttgccg tggatatcag gggctcccg ctcgccgctt 60

ggctgagatc aggcgcttct tcgaggactg cgagaagaat gagagcgagg cggctgctgt 120

gaatgacttt ctgccggcga gcgccgcttg tgaagccgtg cggcgctctg tgggcctgtg 180

tgtgcgtgc gtcgttgagg gcctgaggag gtaggattct gatgg 225

<210> 451

<211> 244

<212> nucleic acid

<213> Zea mays

<400> 451

cgccgctgac ccaggttgtc ttgatggcgc ccgctgtaga agccgtgaag gagacaggca 60

ccttccagaa ggttccctgcc ttgaacgaaa ggatactgtc agccatgtcc aggaggtctg 120

ttgctgcaca cccttggeat gatctggaga taggtcctgg tgcctcaacc atattcaact 180

gcgtcattga gataccaagg ggctactagg ttaaatatga acttgacaag aaaactggac 240

tgat 244

<210> 452

<211> 311

<212> nucleic acid

<213> Zea mays

<400> 452

cggtccgctc gtcggtgcc atcctagggt ttctttcccc gtcggcgcct cccagattt 60

ggcgcgcgcc gccgctgacc caggttgtct tgatggcgcc cgctgtagaa gccgtgaagg 120
agacaggcac cttccagaag gttcctgcct tgaacgaaag gatactgtca tccatgtcca 180
ggaggtctgt tgetgcacac cttggcatg atctggagat aggtcctggt gctccaacca 240
tattcaactg cgtcattgag ataccaaggg gcagcaaggt taaatatgaa cttgacaaga 300
aaactggact g 311

<210> 453
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 453

agctccgtcg tcgctgcca tcctagggtt tctttccccg tcggcgctc cccagatttg 60
gccgcgcgcc ccgctgacc aggttgtctt gatggcgccc gctgtagaag ccgtgaagga 120
gacaggcacc ttccagaagg ttctgcctt gaacgaaagg atactgtcat ccatgtccag 180
gaggtctgtt gctgcacacc cttggcatga tctggagata ggtcctggtg ctccaacccat 240
attcaactgc gtcattgaga taccaagggg cagcaagggt aaatatgaac ttgacaagaa 300
a 301

<210> 454
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 454

ctgaaatcag gcgcttcttc gaggactaca agaagaatga gaacaaggag gttgctgtga 60
atgactttct accagcgagc gccgcttatg aagccataca gcactctatg gacctgtatg 120
ctacatacat cgttgagggc ctgaggaggt aggattctga tggctaggaa aggtggggag 180
gatgttgacg aaaaactggg agaccattta ccgcatggaa cgagtaccgt tattatttta 240
tttgtgtcgt gtatactgct agtagtgaac cctcaatcaa agaccgaaat 290

<210> 455
<211> 249
<212> nucleic acid
<213> Zea mays

<400> 455
ccagatttgg ccgccgccgc cgctgaccca gggtgtcttg atggcgcccg ctgtagaagc 60
cgtgaaggag acaggcacct tccagaaggc tcctgccttg aacgatagga tactgtcatc 120
catgtccagg aggtctgttg ctgcacaccc ttggcatgat ctggagatag gtcctgggtgc 180
tccaaccata ttcaactgcy tcattgagat accaggggca gcaagggttag atatgaactt 240
gacaagaaa 249

<210> 456
<211> 312
<212> nucleic acid
<213> Zea mays

<400> 456
ctgacgcgtg ggcggacgcg tgggcggctc cgctgcgcgc tgccatccta gggtttcttt 60
ccccgtcggc gcctccccag atttggccgc cgccgccgct gacgcagggt gtcctatatg 120
gcgcccgcgt tagaagccgt gaaggagaca ggcaccttcc agaagggttcc tgccttgaac 180
gaaaggatac tgtcatccat gtccaggagg tctgttgctg cacacccttg gcatgggtctg 240
gagataggct ctggtgctcc aaccatattc aactgcgtca ttgagatacc aaggggcagc 300
aagggttaaat at 312

<210> 457
<211> 359
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (326)
<223>

<400> 457
aggaaataga aagtctccct ggactctaaa atcaatgcct gtgaacacat gaactgtttg 60
tgtcaccat gttcctctgc tccttggcac tttctgatgg atgctcaaat gcttaagaaa 120
gactcataga agcgactcct attcctatgc caggtcattg agataccaag gggcagcaag 180
gttaaatatg gacttgcaag aaaactggac tgatcaagggt ggaccgtgtg ctgtattcat 240
cagttgttta cctcacaac tatggattca ttctcgcac gctttgtgaa gacagtgatc 300

ctttggatgt actggttata atgcangagc ctgttatccc aggctgtttc ctacgtgcg 359

<210> 458
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 458

gactagttct agatccccgc tccgtcgtcg tcgtgccatc ctaggggtttc tttccccgtc 60
 ggcgccctccc cagatttggc cgccgccgcc gctgaccag gttgtcttga tggcgcccg 120
 ctgtagaagc cgtgaaggag acaggcacct tccagaaggt tcctgccttg aacgaaagga 180
 tactgtcatc catgtccagg aggtctgttg ctgcacaccc ttggcatgat ctggagatag 240
 gtccctggtgc tccaaccata ttcaactgcg tcattgagat accaaggggc agc 293

<210> 459
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 459

actagttcta gatccccggt ccgtcgtcgc gtgccatcct aggggtttctt tccccgtcgg 60
 cgccctcccca gatttggccg ccgccgccgc tgaccaggt tgtcttgatg gcgcccgtg 120
 tagaagccgt gaaggagaca ggcaccttcc agaagggttcc tgccttgaac gaaaggatac 180
 tgtcatccat gtccaggagg tctgttgctg cacacccttg gcatgatctg gagataggtc 240
 ctggtgctcc aaccatattc aactgcgtca ttgagatacc aaggggcagc 290

<210> 460
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 460

cggtcgagg gctccgtcgt cgcgtgccat cctaggggttt ctttccccgt cggcgcctcc 60
 ccagatttgg ccgccgccgc cgtgaccca gggtgtcttg atggcgcccg ctgtagaagc 120
 cgtgaaggag acaggcacct tccagaaggt tcctgccttg aacgaaagga tactgtcatc 180
 catgtccagg aggtctgttg ctgcacaccc ttggcatgat ctggagatag gtccctggtgc 240

tccaaccata ttcaactgcg taaggccacc ctgtcat

277

<210> 461
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 461

cggaacgtgg gcggctccgt cgtcgctgac catcctaggg tttctttccc cgtcggcgcc 60
tccccagatt acgccgccgc cgccgctgac ccaggttgtc ttgatggcgc ccgctgtaga 120
agccgtgaag gagacaggca ccttccagaa ggttcctgcc ttgaacgaaa ggatactgtc 180
atccatgtcc aggaggtctg ttgctgcaca cccttggcat gatctggaga taggtcctgg 240
tgctccaacc atattcaact gcgtc 265

<210> 462
<211> 183
<212> nucleic acid
<213> Zea mays

<400> 462

gctgaaatca ggcgcttcta cgaggactac aagaagaatg agaacaagga ggttgctgtg 60
aatgactttc taccagcgag cgccgctatg aagccataca gcactctatg gacctgtatg 120
ctacatacat cgttgagggc ctgaggaggt aggattctga tggctaggaa aggtggggag 180
gat 183

<210> 463
<211> 291
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (261)
<223>

<400> 463

caatgattga tgagggagag cttgactgga aaattgtggc catttctttg gatgacccga 60
aagcatctct tgtgaacgac gtggatgatg ttgagaagca ttttccgggg aactgactg 120

ccatcagaga ctggttcaga gactacaaga tacctgatgg aaagcctgcc aacaaatttg 180
gtctcggcaa caagcccgca agcaaggaat acgccctgaa ggtcattcaa gagaccaacg 240
aatcatggga gaaattggta nagagaaata ttcccgtgg agagctctcg t 291

<210> 464
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 464

ccgaaagcat ctcttgtgaa cgacgtggat gatgttgaga agcattttcc ggggacactg 60
actgccatca gagactgggt cagagactac aagatacctg atggaaagcc tgccaacaaa 120
tttggctctcg gcaacaagcc cgcaagcaag gaatacgccc tgaaggatcat tcaagagacc 180
aacgaatcat gggagaaatt ggtaaagaga aatattcccc ctggagagct ctggttggcc 240
tgattttggc ccatggaagc caccacattc ttttgaactg c 281

<210> 465
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 465

tggtgagaag cattttccgg ggacactgac tgccatcaga gactggttca gagactacaa 60
gatacctgat ggaaagcctg ccaacaaatt tggctctcggc aacaagcccc caagcaagga 120
atacgccctg aaggatcattc aagagaccaa cgaatcatgg gagaaattgg taaagagaaa 180
tattccccgt ggagagctct cggttgccctg attttggccc atggaagcca ccacattctt 240
ttgaactgct ttcgtgagca tgctgtttt 269

<210> 466
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 466

gaccaactt ctgcaaattc tgaggttgaa ggagcgtttg gggataatga tcctgttgat 60
gttgttgaga tcggtgaaag acgtgccaat gtcggggatg ttcttaaggt taagccattg 120

<221> unsure
 <222> (45)
 <223>

 <400> 469

 agtttgttat gtcacgggtct gatgcgcgcc actctcacat gcctncgcct gtcaggcagc 60
 gccaccgggt ctgtttcgtc atggttatga caaaagtgga tgcagttctc cgttgccgat 120
 tctcggaatc ggttttctcga ttgatgcctg aaatttcacat atgattagcg tttatgggtg 180
 atttcaacga tgaggggggtt cccaagggtct atgctttccc tctcacgatg cctactgtta 240
 ctctgattga gtgaagattt gcaaccttca ctcacaggtc agctgctgca catccgtggc 300
 atttcgtgta gattgttcca taagcgcccta ctgttttcaa ctgtgtagtt gtcattatca 360
 agagtagtac ggttaagtat gagctacaca cagacagtag acttaattgg gctgatcacg 420
 ttctctattc aaccattatt tcccccaaaa gctacgggtt ca 462

<210> 470
 <211> 408
 <212> nucleic acid
 <213> Zea mays

<400> 470

 ggggtggcgta cttcacgtcg cgggtgcggtc tacaattaga gtcgagcacg cgtccgatca 60
 tagtccgtgt acgcgtccaa tgacgtctct tgcacagcgc accataactc agcatttact 120
 gaacatggac tgcagctccc ctccggaggcg tccctcgctgg catgagcggg agaggagcta 180
 ctgggtactac atctaatagc atggactggc ctgggtgaatg tggaccgtct gctttaatca 240
 tcaattattt aagctcataa ctatggattc attcctcaca cgctttgtga acacagtgat 300
 cctttggatg tactgggttat aatgcaggag cctgttatcc caggctgttt cctatgtgcg 360
 attgcaatcg gccttatccc gaatattgat cagggagaag cagatgac 408

<210> 471
 <211> 424
 <212> nucleic acid
 <213> Zea mays

<400> 471

 agcgtcaccg tccgtggtgat cacgcccaga tcaaatacta ttcaaatttg gagcgcaata 60

tggctgaaga gaagagccgt ccgcggctga acgagcggat catgtcgtcc ctctcaaagc 120
 ggctcggctgc tgcgcattcc tggcatgacc ttgagatagg acctggagcc cctgctgttt 180
 tcaattgtgt tgttgagatc acaaagggca gtaaagtga atatgagcta gacaagaaga 240
 ccggaatgat caagggtgac aggggtgctat actcatcagt ggtctaccca cacaactacg 300
 gtttcattcc acgaacattg tgtgaagacg gagatccaat ggatgtgctg gtgttgatgc 360
 aggaaccggg gatacctggc tgttttcttc gggcaagggc catcggcctt atgcccata 420
 ttga 424

<210> 472
 <211> 472
 <212> nucleic acid
 <213> Zea mays
 <220>
 <221> unsure
 <222> (12)...(14), (33), (52)
 <223> unsure at all n locations
 <400> 472

agaaatgggtg tnnncctaaa tctcagcctg atnctttacc actccctccg gnatccgggc 60
 aagcgccgga tccacgcgtc ccgtgactcg tggctcgggtgc cccgttgctg ctctgtaaaa 120
 ccagacggcg aaccactgct gcgggtccact gcatcccggtg tccgtcttct cgtgccatgc 180
 tacggttgct ttctcccgct gcgcctgctg cagatttggtc cgccgtcgcc gctgaccag 240
 gctgtcttga tggcgcccgga tgcagaagcc gctaagggga caggcaccgt tccacaaagg 300
 tgctctgcca ttgaacgaaa ggatactggc atgcatgtcc aggaggtctg ctgctggaca 360
 cccttggtcat gatctggaga taggccttgg agctccaacc atattcaact gcgtcattga 420
 gatacccagg ggcagcaagg tttaatatga acttgacaag gaaactggac tg 472

<210> 473
 <211> 239
 <212> nucleic acid
 <213> Zea mays
 <400> 473

catgtacacc gtcttaagag agttaaatgt tagtgcttgc ctctgttag attgaatggg 60
 cggtttaacc gagacattca gacaagaaga atgagaacaa ggagggtgct gcgaatgact 120

ttctaccagc gagcgccgct tatgaagcca tacagcactc tatggacctg tatgctacat 180
 acatcgcttg agggcctgaa gaggtaggat tctgatggct aggaaaggctc gcgaggatg 239

<210> 474
 <211> 429
 <212> nucleic acid
 <213> Zea mays

<400> 474

cccacgcgtc cgccgaaact ccgacagtcc gaccacaaga aggatgagtg aagaggatga 60
 gactgctgct tctgctgagc agccgaagag ggcccctaag ctcaatgaaa ggatcctctc 120
 ttctctgtcc aggaggtccg tagctgctca tccatggcat gatcttgaga tcggtcctga 180
 tgctcctgct gttttcaatg ttgttggtga gatcacaaag ggaagcaaag ttaaataatga 240
 gcttgacaag aaaactggac tgattaaggt tgatcgagtc ctgtactcat cagttgtata 300
 ccctcacaat tatggtttcg ttccaaggac tctttgtgaa gacaatgacc caatggatgt 360
 gttagtccctg atgcaggagc ctgttggtcc tggttcgttc ctgagagcaa gagcaatcgg 420
 ccttatgcc 429

<210> 475
 <211> 399
 <212> nucleic acid
 <213> Zea mays

<400> 475

cggccacact ggaagccgga gagaatcgag catagccacc gatcgctcct ctccactggg 60
 cagattccag ttccactccg cctccgctgc cggtcgccga ctccgaaact ccgacagtcc 120
 gaccacaatg atccacatat agatgagtgg agaggataag gctgctgctt ctgctgagca 180
 gccgaagagg gcccctaagc tcaatgaaag gatcctctct tctctgtcca ggaggtccgt 240
 agctgctcat acgtggcatg atcttgagat cggtcctgat gctcctgctg ttttcaatgt 300
 tgatgttgag atcaciaaagg gaagcaaagt taaatatgag ctcgacaaga aaactggact 360
 gattaaggtt gatcgagtcc tgtactcatc agttgtata 399

<210> 476
 <211> 390

<212> nucleic acid
 <213> Zea mays

 <400> 476

 ccgcagtgca ggactgagga tgagtgaaga ggataaggct gctgcttctg ctgagcggcc 60
 taagagggcc cctaagctca atgaaaggat cctctcctct ctgtccagga ggtccgtagc 120
 tgctcatcca tggcatgata tcgagatcgg tcctgggtgct cctgctgtat tcaatgttgt 180
 tgttgagatc acaaagggaa gcaaagtcaa atacgagctt gacaagaaaa ctggactgat 240
 taaggttgat cgagtccttt actcatcagt tgtataccct cacaattatg gtttcattcc 300
 aaggactctt tgtgaagaca atgacccaat ggatgtgttg gtccctgatgc aggagcctgt 360
 tgttcctggg tcgttcctga gagctagagc 390

<210> 477
 <211> 398
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (336), (376)
 <223> unsure at all n locations

 <400> 477

cggacgcgtg ggcggacgcg tgggcggaacg cgtgggcca tcgtcctct ccaactgtcca 60
 gattccagtt ccaactccgcc tccgctgccg gtcgccgact ccgaaactcc gacagtccga 120
 ccacaaggtc ttgtgcggga tccacagaag gatgagtgaaggaggataaga ctgctgcttc 180
 tgctgagcag ccgaagaggg ccctaagct caatgaaagg atcctctctt ctctgtccag 240
 gaggtccgta gctgctcatc cgtggcatga tcttgagatc ggtcctgatg ctctgtgtgt 300
 tttcaatgtt gttgttgaga tcacaaaggg aagcanagtt aaatatgagc ttgacaagaa 360
 aactggactg attaanggtg atcgagtcct atactcat 398

<210> 478
 <211> 362
 <212> nucleic acid
 <213> Zea mays

 <400> 478

gggaagcaaa gttaaatatg agcttgacaa gaaaactgga ctgattaagg ttgatcgagt 60
 cctataactca tcagttgtat accctcacia ttatgggttc gttccaagga ctctttgtga 120
 agacaatgac ccattggatg tgttggctct gatgcaggag cctgttattc ctggttcggt 180
 cctgcgagca agagcaatcg gccttatgcc catgattgac cagggtgaaa aggatgacaa 240
 gataatagca gtctgtgctg atgatcctga atacgtcac tacaacgaca tcagtgaagt 300
 gtcttctcat cgctgcaag agatcaagcg gttctttgaa gattattaga agaatgaaga 360
 tt 362

<210> 479
 <211> 410
 <212> nucleic acid
 <213> Zea mays

<400> 479
 gacccaatgg atgtgttggc cctgatgcag gagcctgttg ttcttggttc gttcctgaga 60
 gctagagcaa ttggccttat gcccatgatt gaccagggcg aaaaggatga caagataata 120
 gcagtatgtg ctgacgatcc tgaataccgt cactacaacg acatcagcga gctgtctcct 180
 caccgcctgc aagagatcaa gcgcttcttt gaagattaca agaaaaacga gaacaaagaa 240
 gtgcgagttg atgcattctt gcccgcgaca acagctcaag aagccattca gtactccatg 300
 gacctgtatg ccagtatat tttgcaaagc ttgaggcagt agattgcaag caacaattta 360
 tctatcatgc gtcttggtac ggggcgtgat ttaataagc cgaatcgctt 410

<210> 480
 <211> 373
 <212> nucleic acid
 <213> Zea mays

<400> 480
 gctcctctcc actttccaca ttccagttcc actccgactg cgctgccggt cgccgactcc 60
 gaaactccga cagtcggacc acaaggctct gtgcgggcat cacagaagga tgagtgaaga 120
 ggataagact gctgcttctg ctgagcagcc gaagagggcc cctaagctca atgaaaggat 180
 cctctcttct ctgtccagga ggtccgtagc tgctcatcca tggcatgac ttgagatcgg 240
 tctgatgct cctgctgttt tcaatgttgg tggtgagatc acacagggat gcaaagctta 300

atatgaactt gacaagaaaa ccggactgat taaggggtgat cgagtcctgg acttatcagt 360
tgtataccct tac 373

<210> 481
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 481

cccactctcc gaaggactct ttgtgaatac aatgacccaa tggatgtgtt ggtcctgatg 60
catgagcctg ttgttcctgg ttcgttcctg agagctagag caattggcct tatgcccattg 120
attgaccagg gtgaaaagga tgacaagata atagcagtat gtgctgacta tcctgaatac 180
cgtcactaca acgacatcag cgagctgtct cctcaccgcc tgcaagagat caagcgcttc 240
tttgaagatt acaagaaaaa cgagaacaaa gaagtcgcag ttgatgcatt cttgcccgcg 300
acaacagctc aagaagccat tcagtactcc atggacctgt atgccagta tattttgcaa 360
agcttgaagc agtagattgc aagcaacaat ttatctatca tgcgtcttgg atcggggcgt 420
gattttaa 428

<210> 482
<211> 384
<212> nucleic acid
<213> Zea mays

<400> 482

aggtcaatac aacgacatca gcgagctgtc tctcaccgc ctgcaagaga tcaagcgctt 60
ctttgaagat tacaagaaaa acgagaacaa agaagtcgca gttgatgcat tcttgcccgc 120
gacaacagct caagaagcca ttcagtactc catggacctg tatgccagat atattttgca 180
aagcttgagg cagtagattg caagcaacaa tttatctatc atgcgtcttg gatgggggcg 240
tgattttaat aagccaaatc gcttgctata ttgggaacct tggaattgag aacagcgctca 300
ctagctgtga ttcgctcctt tctcgtaaaa ttatcatatg aataggccaa gtccatacgt 360
ttaccgtgtg gcgctctgtc agtc 384

<210> 483
<211> 435
<212> nucleic acid

<213> Zea mays

<400> 483

ggtttgcagg cgttgtcttc cggatttttg tccactacac tggtcagcct cttcttggag 60

ctaaagttgt agcctccatg ctgatgtttg cgacggtcgc tgggattctc atggcactct 120

tcttgaacac tgctggcggc gcctgggata atgcacagaa gtacattgag actggcgctc 180

ttggtggcaa gggcagcgag tcccacaagg ctgcggttac tggcgacacg gttggagacc 240

cattcaaaga cactgctgga ccgtcgtgc atgttcttat caagatgctc gccacaatca 300

cgctgggcat ggctccgata ttcttgtgat taaccaacca ctcacatcaagc ttgctattaa 360

ccctgcggag atgtacctat gcgaccaggt agatgagggtg tgtgtgtgtg tgtgttacct 420

gcatgtgatg atgta 435

<210> 484

<211> 322

<212> nucleic acid

<213> Zea mays

<400> 484

cggacgcgtg cgctcacgtg gttgagtctc ctatttgcag caagggttaag tacgacggcg 60

acagggcatc tgggtctgatc aagggtggacc gtgttcttta ttctctgtt gtttaccac 120

ataactatgg cttcattcca ctgcacactc tgtgaggata acgacccccct ggatgtcctc 180

atactgatgc aggaacaagt tgtccctgtg tgattcctgc gagctcgtgc tattgggctc 240

atgcctatga tcgatcaggt ctagtgtctt cgtcacctga tcgcatagtg cttgctatgt 300

ttaccttagg ccatatattt tt 322

<210> 485

<211> 441

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (190), (198), (250)

<223> unsure at all n locations

<400> 485

gggacaacgc caagaagtac attgaggctg gagtttcaga gcatgccaa acccttggcc 60

caaaaggggtc tgaccctcac aaggcgggtg tcattggtga caccattgga gatccctcta 120
aggacacgtc tggccctttc ctcaacatcc tcatcaagct tatggcggtt gaatcccttg 180
tcttcgceen cttcttcngc cgccatggtg gcattctctt caaatggctc taagccagcg 240
agagacgcan gataaaagcc gtagttttgc aaggcgagta gagcagtatg tcagtaatac 300
agcatctatg gcatgtgctt ttgctcgtcc agttcatgag ccccgttgtg tatttggttt 360
ccgttttctt ggttggagtt tttagttcca aagtccgac atgttttgat ccataaaatt 420
ctcttccagc cttcgagcaa c 441

<210> 486
<211> 468
<212> nucleic acid
<213> Zea mays

<400> 486

atcgccgtgt gcgccgacga ccccgagtac cgtcactaca acgacatcag cgagctctgc 60
cctcaccgcc tacaggagat ccgccgcttc ttcgaagact acaagaagaa cgagaacaag 120
gaggtggccg tcaacgactt cctgcccgcc gccgctgccc gcgaagccat ccagtactgc 180
atggacctgt acgggcagta catcatgcag accctgcggc ggtagagcgt gtcctaccag 240
atcccatgcy agctgagctg acgcaagagc acagatcgac agaatccttg tggctctagtc 300
tcatgcatgg atagccaggt cacatggctt gtcgacgacc atgcatctgt tcttccagc 360
gattctagcc tgtatctgcc cttatttata gtctcttggg tttggtggaa tctgtccaca 420
gtgtggcttg atctatgtac tactcttcta catttctacc agaacgaa 468

<210> 487
<211> 481
<212> nucleic acid
<213> Zea mays

<400> 487

gcctggcgca gcgtcagttg ccagcacggt ctagcaatcc ggtcggccac gcgtccgagg 60
aaacgtgggc ggacgcgtgg gcacgcacac tctgtgagga taacgacccc ctgaatgtcc 120
tcatactgat gcaggaacaa gttgtccctg ggtgtttcct gcaagctcgt gctattgggc 180
tcatgcctat gatcgatcag ggcgagaaag atgataagat tatagcagtc tgtgctgatg 240

accctgaatt ccgtcactac acggacatca cggacctccc accgcatcgc cttcaagaga 300
 tccgccgctt ttttgaagat tataaaaaga acgaaaataa ggaggtcgca gtgaatgagt 360
 tcctgccagc gaaagatgcc atcaacgcaa tcaagtactc gatggacctg tatggctcat 420
 acgtcatoga aagcctgagg aagtgatctc cagctgcttg attgtggttg tggatgctac 480
 a 481

<210> 488
 <211> 416
 <212> nucleic acid
 <213> Zea mays

<400> 488

cccacgcgtc cgcattccatg tccaggaggt ctgttgctgc acacccttgg catgatctgg 60
 agataggtcc tgggtgctcca accatattca actgcgtcat tgagatacca aggggcagca 120
 aggttaaata tgaacttgac aagaaaactg gactgatcaa ggtggaccgt gtgctgtatt 180
 catcagttgt ttaccctcac aactatggat tcattcctcg cacgctttgt gaagacagtg 240
 atcctttgga tgtactgggt ataatgcagg agcctgttat ccagggctgt ttcctacgtg 300
 cgaaggccat cggccttatg ccgatgattg atcagggaga ggcagatgac aagatcattg 360
 cagtgtgcgc tgatgatccc gagtacaggc attacaatga tatcaaggag ctccca 416

<210> 489
 <211> 400
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (303), (368), (381)
 <223> unsure at all n locations

<400> 489

cccacgcgtc cgtggattca ttccctgcac tctttgtgaa gacagtgatc ctttggatgt 60
 actggttata atgcaggagc ctgttatccc aggtgtttc ctacgtgcga aggctatcgg 120
 ccttatgccg atgattgate agggagaggc agatgacaag atcattgcag tgtgcgctga 180
 tgatcccgag tacaggcatt acaatgatat caaggagctc ccacctcacc gcttggctga 240

aatcaggcgc ttcttcgagg actacaagaa gaatgagaac aaggagggtg ctgtgaacga 300
 ctntctacca gcgagcgccg cttatgaagc catacagcac tctatggatc tgtatgctac 360
 atacatcngt gagggcctga ngaggtaaga ttctgatggc 400

<210> 490
 <211> 457
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (425)
 <223>

<400> 490

acgctttccc cgtcggcgcc tactcagatt taattcggac gccgccgccg ccgctgaccc 60
 aggggggtctt gatggcgccc gctgtagaag ccgttaagga gacaggctcg ttccagaagg 120
 ttctgcctt gaacgaaagg atactgtcat ccatgtccag gaggtctgtt gctgcacacc 180
 cttggcatga tctggagata ggtcctggtg ctccaacccat attcaactgc gtcattgaga 240
 taccaagggg cagcaagggt aaatatgaac ttgacaagaa aactggactg atcaaggtgg 300
 accgtgtgct gtattcgtca gttgtttacc ctcacaacta tggattcatt cctagcactc 360
 tctgtgaaga cagtgatcct ttggatgtac tggttataat gcatgagcct gttatcccat 420
 gctgnttcct acgtgcgaag gctatcggcc ttatgcc 457

<210> 491
 <211> 445
 <212> nucleic acid
 <213> Zea mays

<400> 491

cactgatcaa ctgcaacgca atgacgagac tcatgggtcg acgcaagact ctagagtga 60
 tgctatcagc cttatgccga tgattgatca gggagaggca gatgacaaga tcattgcagt 120
 gtgcgctgat gatcccgagt acaggcatta caatgatatc aaggagctcc cacctcaccg 180
 cttggctgaa atcaggcgct tcttcgagga ctacaagaag aatgagaaca aggagggtgc 240
 tgtgaatgac tttctaccag cgagcgccgc ttatgaagcc atacagcact ctatggacct 300
 gtatgctaca tacatcggtg agggcctgag gaggtatgat tctgatggct aggaaagggtg 360

ggccatttct ttggatgacc cgaaagcatc tcttgtgaac gacgtggatg atgttgagaa 60
gcattttccg gggacactga ctgccatcag agactgggtc agagactaca agatacctga 120
tggaaagcct gccaaacaaat ttggtctcgg caacaagccc gcaagcaagg aatacgccct 180
gaaggtcatt caagagacca acgaatcatg ggagaaattg gtaaagagaa atattcccgc 240
tggagagctc tcgttggcct gattttggcc catggaagcc accacattct tttgaactgc 300
tttcgtgagc atgtcgtttt gtatgctgtg accatgcttc ttcgtttgca ttccaaacct 360
tttttacgaa ctgtttaaca aaaatgatct tgtcggataa ataatgattc tgggtgcgag 419

<210> 497
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 497

cacacgcgtc cggggaggac ccaacttctg caaattctga gggtgaagga gcatttgggg 60
ataatgatcc tgttgatggt gttgagatag gtgaaagacg tgccaatgtc ggggacgttc 120
ttaaggttaa gccattggca gcttttagcaa tgattgatga gggagagctt gactggaaaa 180
ttgtggccat ttctttggat gacccgaaag catctcttgt gaacgacgtg gatgatgttg 240
agaagcattt tccggggaca ctgactgcca tcagagactg gttcagagac tacaagatac 300
ctgatggaaa gcctgccaac aaatttggtc tcggcaacaa gcccgcaagc aaggaatacg 360
ccctgaaggt cattcaagag accaacgaat catgggagaa attggtaaag agaaatattc 420
ccgctgga 428

<210> 498
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 498

ccaaggagct cgcggggaggc ctgcagcagc ggcgggccct gtaccagccc cgcctcccgc 60
catgcctcca gggaccgacg gtaagggcgg agtacggtga cgcgaccaca accatcgatc 120
ccacctgtgc ccaagccgtc gcgcaggcct tcccgcacac ctttggccag ccgctcgtca 180
tcttcgtcgc gccggccgcc ggcgccggcg ccgttagagg agcgccaccc gatcaggggtg 240

ggcgtggtgt tctctgggag gcagtcgccg ggatggcaca acgtcgtctg gggcctccat 300
gacgcactta aag 313

<210> 499
<211> 256
<212> nucleic acid
<213> Zea mays

<400> 499

cccacgcgtc cggatcagag gaggcacccg tgaccaaaga tcgagtagcc aagaagaaga 60
gagatgaacg ccgacttcgg cgcgccaag gagctcgcgg gaggcctgca gcagcggcgg 120
gccctctacc agccccgcct cccgccatgc ctccagggaac cgacggtaag ggcggagtac 180
ggtgacgcga ccacaacccat agatcccacc tgtgccaag ccgtcgcgca ggccttcccg 240
cacacctttg gccagc 256

<210> 500
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 500

cccacgcgtc cggaacagac gtttgaagga gggcacttac aaaggaaaga aagttaatgc 60
aatctgtcac ttctttggct accaagctag gggagcactg cttccaagt ttgactgcga 120
ttatgcctat gtcttggggc atgtgtgcta ccacatcata gctgccggtt tgaacggtta 180
catgggcaca gtgacaaatg ttaagagtcc agtgaacaag tggcgatgtg gtgcggctcc 240
tatttcgtct atgatgactg tgcagcgatg gtcgcgt 277

<210> 501
<211> 132
<212> nucleic acid
<213> Zea mays

<400> 501

cgagacgcgt gggagagcag gtcaatggtg ctatggctag ttgccaagct ttgaagttgg 60
atgctctggt tatcactgga ggtgtcactt ccaacactga tgctgctcaa cttgccgaga 120
catttgetga gg 132

<210> 502
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 502

cattgtgaag cctgggtgct ctcaggatgt ccttaaggcg gcgctgagcg ccatgtcttc 60
 tgtgacggag aactgaaca tcatgacctc atcgccacc gccagactg cactgtgact 120
 cgtttgggtgc cgtttgggtg tgccgatcag aatccccact tttccatgg tgcgattga 180
 caaagttagg agcagtaatc ctgtgggtgcc gatcagaatc cccacttttt ccatgggtgcc 240
 acacgggtca ttcttttgta gcttcttggg agagttctat cagttttgaa 290

<210> 503
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 503

cattgtgaag cctgggtgct ctcaggatgt ccttaaggcg gcgctgagcg ccatgtcttc 60
 tgtgacggag aactgaaca tcatgacctc atcgccacc gccagactg cactgtgact 120
 cgtttgggtgc cgtttgggtg tgccgatcag atccccactt tttccatggg tgcgattgac 180
 aaagttaggga gcagtaatcc tgtgggtgcgg atcagaatcc ccaacttttt catgggtgcca 240
 cacgggtcat tctttttag tagcttcggga gagttctatc agttttgaat 290

<210> 504
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 504

gcgccacccg caccaccaa cgaggcaacg aaaccagtc ggaagctaga ccggcgacaa 60
 gtgcagcgct cgcccgatg gatactgact acggcggtgcc gcgcgagctg tcggagggtgc 120
 agaagaagcg cgcgtctac cagcccgagg tgccccctg catccagggg actactgtca 180
 ggggtggagta tgggtgacgcc gcaattgcag ctgaccaggc aggcgctcat gtgatcagcc 240
 atgcgttccc tcacacctat gggcagcccc ttgca 275

<210> 505
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 505

cagctttctc agattgaaga ccagaagaac tttctacccc agttagttga gactgaaatg 60
 gacagacttt tgaaggaggg cacttacaaa ggaaagaagt ttaatgcaat ctgtcacttc 120
 tttggctacc aagctagggg agcactgcct tccaagtttg actgcgatta tgcctatgtc 180
 ttggggcatg tgtgctacca catcatagct gccggtttga acggttacat ggccacagtg 240
 acaaatgtta agagt 255

<210> 506
 <211> 421
 <212> nucleic acid
 <213> Zea mays

<400> 506

ctttttgttg gaagatgtct acaggaaccc aagcccgggt cagtttgaag ggccaagtgc 60
 ccattcaaag cctatgtgag ttgtccttga aggttcagaa ctttttggcc ggattaaaaa 120
 agttcaggat tccttggaag aggtgaaaag gattgtgaac cctgggtgct cgcaggatgt 180
 tcttaaagcg gcgctgagtg ccatgtcttc tgtgacggaa aactgaaca tcatgacttc 240
 atcttctacc ggccagactc cactgagtca ttaggtacca tttcatggta tggatcataa 300
 tccccacttt tttcagtggg ggcgattaac gagtttagga acagcaaccc tggatcata 360
 cgggttatcc tttttgtagc cttttggaga gttctatcgg ttttggattc ggtagtttat 420
 g 421

<210> 507
 <211> 363
 <212> nucleic acid
 <213> Zea mays

<400> 507

gcattgtgaa gcccgggtgc tcgcaggatg tccttaaagc agcggtaagc gccatggctt 60
 ctgtgacgga gatgttgacc atcatgtctt ccctttcatt tagtggacag gcgaccatct 120

ggaagagatc gcgagatag agaagatgca tgaactcatc aagaccacaca acttggtcgg 60
gcagttccgc tggatctctg ccagacaaa cagggcccggt aacggcgagc tctatcgcta 120
catcgctgat acccatgggtg ctttcgtaca gccggccttc tatgaagcgt tcggtctcac 180
cgtcgttgaa gccatgacct gtggacttcc tacttttcgcy acgctccatg gagggccagc 240
tgagatcata gagcatggcg tctcgggctt ccacattgac ccgta 285

<210> 514
<211> 112
<212> nucleic acid
<213> Zea mays

<400> 514

gtccatttga tttgcgttca ctgcgttgcy tttccttgga ggggattggt ctctcctctc 60
catgggattg gaggtccctc cttcttctcc tctctctctc agatgaacgc ct 112

<210> 515
<211> 135
<212> nucleic acid
<213> Zea mays

<400> 515

gtccagggg agacaatggt gaacttggga tcgaaaaccg acaagagact cactgctcat 60
ccagatcgag agtcatctaa ggacgtcaga ctcgcacact cggctagaca gaaagcgtca 120
ctccgagggg ccacg 135

<210> 516
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 516

ataagaaatg gatatcaaga tttgatgtgt ggccatatct ggaaacattt gctgaggatg 60
ctgctggtga aattgctgct gaattacaag gtactccaga cttcataatt ggaaactaca 120
gtgatggaaa tcttgtggca tcgttgctat cttacaagat ggggaattacc cagtgaaca 180
ttgctcatgc tctggaaaag actaagtatc cagattcaga catattttgg aagaatttcg 240
atgagaagta ccatttctcc ttcagttcac ggctgatata attgctatga acaatgc 297

<210> 517
 <211> 202
 <212> nucleic acid
 <213> Zea mays

 <400> 517

 tagcactcgt ttccaggtat gttcaccagg gcaaggggaat gcttcatcgc catcagctgc 60
 ttgcggagtt tgatgccctg tttggatagt gacaaggaga agtatgcacc ctttgaagac 120
 attcttcgtg ctgctcagga agcaattgtg ctccccccat gggttgcact tgctatgggg 180
 ccaagtccgg ttgtctggga tt 202

<210> 518
 <211> 346
 <212> nucleic acid
 <213> Zea mays

 <400> 518

 tcgtatccca catggataca ttggacaagg taatgtatta ggcttgccag acacacagag 60
 gatagatcgt ctatatactg gaccaagttc gtgcactagt aaatgggatc gctctacgtt 120
 tacagccaca agggcttgat gtttccccaag agattcacat tgctagtcgg ctgatcatag 180
 atggagtagg tagatcatgc aatcagcggg ttgagagagt tagtggcaca cagcatactt 240
 acatattacg agttcacttc tgagatgaaa atgggatact tatgaagtgg atatcaagat 300
 tatgatgaga ggcgatatct ggagacattt gctgaggatg ctgctg 346

<210> 519
 <211> 62
 <212> nucleic acid
 <213> Zea mays

 <400> 519

 ccgttctacg acacgttcgg cctgctgtgt cgagtcatac gtcggctgca agatcggctg 60
 ca 62

<210> 520
 <211> 250
 <212> nucleic acid
 <213> Zea mays

<400> 520
 ggacaccgtg gggcagtag agtcccacat cgcgttcact cttcctgggc tctaccgtgt 60
 ccttgcttcc cgcgatttct tggaatgtgc tggatgatgat gaaatcgggtg tggttcatgg 120
 caataagggtc agctgtgaac tggcaagaga agtgggtactg gctgtacgag tcccacatcg 180
 cgttcactct tcttggggtc taccgtgtcg tccatggcat cgatgttttc gatcccaagt 240
 tcaacattgt 250

<210> 521
 <211> 142
 <212> nucleic acid
 <213> Zea mays

<400> 521
 catttccgat ggacttcgac atggagtgc attccttgct ctggaacaac ttggacgagg 60
 agagtttgta ccccttgctg aacttcctca aggtcataa ctacaagggc acgacgatga 120
 tgttgaatga cagaatccaa ag 142

<210> 522
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 522
 actttcgcga cgtcccatgg agggccagct gagatcatag agcatggcgt ctcgggcttc 60
 cacattgacc cgtaccaccc cgagcaggct gctaacttga tggccgactt cttcgagcgg 120
 tgcaagcaag acccagatca ctgggtgaaa atatctggag cagggtgca gcgcatatac 180
 gagaagtaca catggaagat ctactcagag aggttgatga cactggccgg ggtctacggt 240
 ttctggaagt acgtgtcgaa gctc 264

<210> 523
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (87)
 <223>

<400> 523

cagtgatgga aatcttgtgg catcgttgct atcttacaag atgggaatta cccagtgcaa 60

cattgctcat gctctggaaa agactanata tccagattca gacatatattt ggaagaactt 120

cgatgagaag taccatttct cctgtcagtt cactgctgat ataattgcta tgaacaatgc 180

tgattttata atcaccagca cataccaaga aattgctgga agcaaaaata ctggttgaca 240

gtatgagagt catactgctt ttactctgcc tgggtctgtac cgagttgtcc atgggatcga 300

tgtcttcgat 310

<210> 524

<211> 181

<212> nucleic acid

<213> Zea mays

<400> 524

atgaacaatg ctgattttat catcaccagc acataccaag aaattgctgg aagcaaaaat 60

actggttgac agtatgagag tcatactgct tttactctgc ctgggtctgta ccgagttgtc 120

catgggatcg atgtcttcga tccaaagttc aatatagtct ctctctggagc tgacatgtcc 180

a 181

<210> 525

<211> 148

<212> nucleic acid

<213> Zea mays

<400> 525

cacataccaa gaaattgctg gaagcaaaaa tactgttgga cagtatgaga gtcatactgc 60

ctttactctg cctgggtctgt accgagttgt ccatgggatt gatgtcttcg atccaaagtt 120

caatatagtc tctctctggag ctgacatg 148

<210> 526

<211> 283

<212> nucleic acid

<213> Zea mays

<400> 526

ctcgagcccc aaagttcaat atagtctctc ctggagctga catgtccata tactttccac 60

<210> 530
 <211> 293
 <212> nucleic acid
 <213> Zea mays

 <400> 530

 cggacgcgtg ggcaaggatg gtgcttttga ggatgtcctg agggcagctc aggaggcgat 60
 tgtcatcccc cacatgggtt gcaattgcca tccgccctag gcctgggtgc tgggagtatg 120
 tgagggtcaa cgtcagttag ctcgctgttg aggagctgag agttcctgag tacctgcagt 180
 tcaaggaaca gcttgtggaa gaaggcccca acaacaactt tgttcttgag ctggactttg 240
 agccattcaa tgcctccttc ccccgctcctt ctctgtcaaa gtccattggc aat 293

<210> 531
 <211> 308
 <212> nucleic acid
 <213> Zea mays

 <400> 531

 gatggtgctt ttgaggatgt cctgagggca gctcaggagg cgattgtcat ccccccattg 60
 gttgcacttg ccatccgccc taggcctggt gtccgggagt atgtgaaggt caacgtcagt 120
 gggctcgtg ttgaggagct gagagttcct gagtacctgc agttcaagga acagcttgtg 180
 gaagaaggcc ccaacaacaa ctttgttctt gagctggact ttgagccatt caatgcctcc 240
 ttcccccgtc cttctctgtc aaagtccatt ggcaatggcg tgcagttcct caacaggcac 300
 ctgtcatc 308

<210> 532
 <211> 170
 <212> nucleic acid
 <213> Zea mays

 <400> 532

 ggcttttttg aggccgaggc cattggtgcc atgcggccag ccctttttctt ctccatggtt 60
 cccatcgatg tgtttttggt cggttctctc gtcagatctg tataaatagg cgctccctt 120
 ctccgccatt cctcggctct ctgaagcggt tcagttcatc gattcagttc 170

<210> 533
 <211> 303
 <212> nucleic acid
 <213> Zea mays

 <400> 533

 gctggtcgaa gcttttgcta agtgcgctaa gctgagggag ctggtaaacc ttgtcgtcgt 60
 tgccgggtac aatgatgtca acaagtccaa ggacagggaa gagatcgcg agatagagaa 120
 gatgcatgaa ctcatcaaga ccacaaactt gttcgggcag ttccgctgga tctctgcca 180
 gacaaacagg gcccgtaacg gcgagctcta tcgtacatc gctgataccc atgggtgcttt 240
 cgtacagccg gccttctatg aagcgttcgg tctcacgcgc gttgaggcca tgacctgtgg 300
 act 303

<210> 534
 <211> 365
 <212> nucleic acid
 <213> Zea mays

 <400> 534

 caccgagtcg cacaagaggc tgacctccct tcacccggag attgaggagc tcctgtacag 60
 ccaaaccgag aacacggagc acaagttcgt tctgaacgac aggaacaagc caatcatctt 120
 ctccatggct cgtctcgacc gtgtgaagaa cttgactggg ctggtggagc tgtacggccg 180
 gaacaagcgg ctgcaggagc tggatgaacct cgtggtcgtc tgcggcgacc atggcaaccc 240
 ttccaaggac aaggaggagc aggcagagtt caagaagatg tttgacctca tcgagcagta 300
 caacctgaac gggcacatcc gctggatctc cgccagatg aaccgcgtcc gcaacggcga 360
 gctgt 365

<210> 535
 <211> 330
 <212> nucleic acid
 <213> Zea mays

 <400> 535

 ataccttggt gcgtgtttgc tcgcccacaa gatgggtggt actcactgta ccattgcca 60
 tgcgcttgag aaaactaagt accctaactc cgacctctac tggaagaagt ttgaggatca 120
 ctaccacttc tcgtgccagt tcaccactga cttgattgca atgaaccatg ccgacttcat 180

<210> 541
 <211> 315
 <212> nucleic acid
 <213> Zea mays

 <400> 541

 cgacagaatc cgcagtctca gtgctctgca aggtgcgctg aggaaggctg aggagcacct 60
 gtccacccta caagctgata ccccatactc tgaatttcac cacagggtcc aggaacttgg 120
 tctggagaag gggtgggggtg attgcgctaa gcggtgcacag gagactatcc acctcctctt 180
 ggacctcctg gagggccccag atccgtccac cctggagaag ttccttggaa cgatcccat 240
 ggtgttcaat gtcgttatcc tctccctca tggttacttc gctcaagcta atgtcttggg 300
 ttacctgac accgg 315

<210> 542
 <211> 327
 <212> nucleic acid
 <213> Zea mays

 <400> 542

 gcgcattcgt gcagcctgcg ttctacgaag cgttcggcct gactgtgatc gagtccatga 60
 cgtgcggtct gccaacgatc gcgacctgcc atggtggccc tgcagagatc atcgtggacg 120
 gggatatctgg cctgcacatt gacccttacc acagcgacaa ggccgcggat atcctgggtca 180
 acttctttga caaatgcaag gcagatccga gctactggga caagatctca cagggcggcc 240
 tgcagagaat ctatgagaag tacacctgga agctctactc cgagaggctg atgacctga 300
 ccggcgtgta cgggttctgg aagtacg 327

<210> 543
 <211> 318
 <212> nucleic acid
 <213> Zea mays

 <400> 543

 gaatcggtcg caagtggatc tcgcgatttg aagtctggcc gtacctggag acttacactg 60
 atgacgtggc gcatgagatt gctggagagc ttcaggccaa tcctgacctg atcattggaa 120
 actacagtga cggaaacctt gttgcgtgtt tgctcgccca caagatgggt gttactcact 180
 gtaccattgc ccatgcgctt gagaaaacta agtaccctaa ctccgacctc tactggaaga 240

agtttgagga tcactaccac ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc 300
atgccgactt catcatca 318

<210> 544
<211> 317
<212> nucleic acid
<213> Zea mays

<400> 544

cttcatcatc accagtacct tccaagagat cgccggaaac aacgacaccg tcggccagta 60
cgagtcacac atggcggttca caatgcctgg cctgtaccgc gttgtccacg gcattgatgt 120
gttcgacccc aagttcaaca tcgtgtctcc tggcgccgac ctgtccatct acttcccgt 180
caccgagtcg cacaagaggc tgacctccct tcacccggag attgaggagc tcctgtatag 240
cccaaccgag aacacggagc acaagttcgt tctgaacgac aggaacaagc caatcatctt 300
ctccatggct cgtctcg 317

<210> 545
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 545

gctgacctta ttgccatgaa ccacaccgat ttcacatca ccagcacatt ccaagaaatc 60
gcgggaagca aggacaccgt ggggcagtac gagtcccaca ttgcgttcac tcttcctggg 120
ctctaccgtg tcgtccatgg catcgatgtt ttcgatccca agttcaacat tgtctcccct 180
ggagcagaca tgagtgttta ctaccogtat acggaaaccg acaagagact cactgccttc 240
catcctgaaa tcgaggagct catctacagc gacgtcgaga actccgagca caagttcgtg 300
ctgaaggaca agaagaagcc ga 322

<210> 546
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 546

ctcccccat gggttaactcg ctcaagctaa tgtcttgggt taccctgaca ccggaggcca 60

ggttgtctac atcttggatc aagtgcgcgc tatggagaac gaaatgctgc tgaggatcaa 120
gcagtgtggt cttgacatca cgccgaagat ccttattgtc accaggttgc tccctgatgc 180
aactggcacc acctgtggcc agcgccttga gaaggtcctt ggcaccgagc actgccatat 240
ccttcgcgtg ccattcagaa cagaaaacgg aatcgttcgc aagtggatct cgcgatttga 300
agtctggccg tacctgga 318

<210> 547
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 547

accgagtcgc acaagaggct gacctccctt caccgcgaga ttgaggagct cctgtacagc 60
caaaccgaga acacggagca caagttcgtt ctgaacgaca ggaacaagcc aatcatcttc 120
tccatggctc gtctcgaccg tgtgaagaac ttgactgggc tggaggagct gtacggccgg 180
aacaagcggc tgcaggagct ggtgaacctc gtggtcgtct gcggcgacca tggcaaccct 240
tccaaggaca aggaggagca ggccgagttc aagaagatgt ttgacctcat cgagcagtac 300
aacctgaacg ggcacatc 318

<210> 548
<211> 326
<212> nucleic acid
<213> Zea mays

<400> 548

ggagaagttc cttggaacta taccaatgat gttcaatggt gttatccttt ctccatcatg 60
ctacttcgct cagtccaatg tgcttgata ccctgacact ggcggtcagg ttgtgtacat 120
tctggatcaa gtccgtgctt tggagaatga gatgcttctg aggattaagc agcaaggcct 180
tgatatcact ccgaagatcc tcattgttac caggctgttg cctgatgctg ctgggactac 240
gtgcggtcag cggttgagga aggtcattgg tactgagcac acagacatca ttcgcgttcc 300
gttcagaaat gagaatggca tcctcc 326

<210> 549
<211> 320

<212> nucleic acid
 <213> Zea mays

<400> 549

accgcgttgt ccacggcatt gatgtgttcg accccaagtt caacatcgtg ttccttggcg 60
 catctacttc ccgtacaccg agtcgcacaa gaggtgacc tcccttcacc 120

cggagattga ggagctcctg tacagccaaa ccgagaacac ggagcacaag ttcgttctga 180

acgacaggaa caagccaatc atctttctcca tggctcgtct cgaccgtgtg aagaacttga 240

ctgggctggg ggagctgtac ggccggaaca agcggctgca ggagctgggtg aacctcgtgg 300

tcgtctgcgg cgaccatggc 320

<210> 550
 <211> 330
 <212> nucleic acid
 <213> Zea mays

<400> 550

tctggccata cctggagaca tacactgagg atgtttccag tgaaataatg aaagaaatgc 60

aggccaagcc tgaccttatac attggcaact acagcgatgg caacctagtc gctactctgc 120

tcgcgcacaa gttgggagtc actcagtgtg ccatcgtctca tgccttggag aaaaccaaata 180

acccaactc ggacatatac ttggacaaat tcgacagcca gtaccacttc tcttgccagt 240

tcacagctga ccttattgcc atgaaccaca ctgatttcat catcaccagc acattccaag 300

aaatcgcggg aagcaaggac accgtggggc 330

<210> 551
 <211> 318
 <212> nucleic acid
 <213> Zea mays

<400> 551

ctacagcgac gtcgagaact ccgagcacia gtctgtgctg aaggacaaga agaagccgat 60

catctttctg atggcgcgtc tcgaccgctg gaagaacatg acaggcctgg tcgagatgta 120

cggcaagaac gcgcgcctga gggagctggc gaacctcgtg atcggttgccg gtgaccacgg 180

caaggagtcc aaggacaggg aggagcaggc ggagttcaag aagatgtaca gcctcatcga 240

cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc gcgtccgcaa 300

cggggagctg taccgcta

318

<210> 552
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 552

aagtacccta actccgacct ctactggaag aagtttgagg atcactacca cttctcgtgc 60
cagttcacca ctgacttgat tgcaatgaac catgccgact tcatcatcac cagtaccttc 120
caagagatcg ccggaacaaa ggacaccgtc ggccagtagc agtcacacat ggcgttcaca 180
atgcctggcc tgtaccgctg tgtccacggc attgatgtgt tcgaccccaa gttcaacatc 240
gtgtctcctg gcgcggacct gtccatctac ttcccgtaga ccgagtcgca caagaggctg 300
acctcccttc a 311

<210> 553
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 553

gttcctcaac aggcaacctgt catcaaagct cttccatgac aaggagagca tgtacccttc 60
gtcacaacttc cttcgcgccc acaactacaa ggggatgacc atgatgttga acgacagaat 120
ccgcagtctc agtgctctgc aagggtgcgt gaggaaggct gaggagcacc tgtccaccct 180
acaagctgat accccatact ctgaatttca ccacagggtc caggaacttg gtctggagaa 240
gggttggggg gattgcgcta agcgtgcaca ggagactatc cacctcctct tggacctcct 300
ggaggcccca gatccgtcca 320

<210> 554
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 554

gacaggaaca agccaatcat cttctccatg gtcgtctcgc accgtgtgaa gaacttgact 60
gggctgggtg agctgtacgg ccggaacaag cggtgcagg agctgggtgaa cctcgtggtc 120

gtctgcggcg accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag 180
 atgtttgacc tcatcgagca gtacaacctg aacgggcaca tccgctggat ctccgcccag 240
 atgaaccgcg tccgcaacgg cgagctgtac cgctacatct gcgacaccaa gggcgccttc 300
 gtgcagcctg c 311

<210> 555
 <211> 363
 <212> nucleic acid
 <213> Zea mays

<400> 555

tgtctggcta ccacatcgac gcttaccagg gcgacaaggc gtcggccctg ctcgtggact 60
 tcttcgacaa gtgacaggcg gagcgagcca ctggagcaag atctcccagg gcgggctcca 120
 gcgtatcgag gagaagtaca cctggaagct gtactcggag aggctgatga ccctcaccgg 180
 cgtgtacggg ttctggaagt acgtgtccaa cctggagagg cgcgagaccc ggcggtacct 240
 ggagatgctg tacgcgctca agtaccgcac catggcgagc accgtgccgc tggccgtgga 300
 gggagagcct ccagcaagtg atgcgtgacg gcggccacag acctgatcga tcgatgagcg 360
 aga 363

<210> 556
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 556

cagaaaacgg aatcgttcgc aagtggatct cgcgatttga agtctggccg tacctggaga 60
 cttacactga tgacgtggcg catgagattg ctggagagct tcaggccaat cctgacctga 120
 tcatcgga aa ctacagtgc ggaaaccttg ttgcgtgttt gctcgccac aagatgggtg 180
 ttactcactg taccattgcc catgcgcttg aggaaactaa gtaccctaac tccgacctct 240
 actggaagaa gtttgaggat cactaccact tctcgtgcc gttcaccact gacttgattg 300
 ccatgaacca tgccgac 317

<210> 557
 <211> 310
 <212> nucleic acid

<213> Zea mays

<400> 557

cccttcaccc ggagattgag gagctcctgt acagccaaac cgagaacacg gagcacaagt 60
tcgttctgaa cgacaggaac aagccaatca tcttctccat ggctcgtctc gaccgtgtga 120
agaacttgac tgggctgggtg gagctgtacg gccggaacaa gcggctgcag gagctgggtga 180
acctcgtgggt cgtctgcggc gaccatggca acccttccaa ggacaaggag gagcaggccg 240
agttcaagaa gatgtttgac ctcatcgagc agtacaacct gaacggggcac atccgctgga 300
tctccgccca 310

<210> 558

<211> 311

<212> nucleic acid

<213> Zea mays

<400> 558

cttgggtctgg agaaggggtt gggtgattgc gctaagcgtg cacaggagac tatccacctc 60
ctcttggaacc tcttgaggc cccagatccg tccaccctgg agaagttcct tggaacgatc 120
cccatgggtgt tcaatgtcgt tatectctcc cctcatgggtt acttcgctca agctaattgtc 180
ttggggttacc ctgacaccgg aggccagggt gtctacatct tggatcaagt gcgcgctatg 240
gagaacgaaa tgctgctgag gatcaagcag tgtgggtcttg acatcacgcc gaagatcctt 300
attgtcacca g 311

<210> 559

<211> 317

<212> nucleic acid

<213> Zea mays

<400> 559

cttggggttac ctgacaccgg aggccagggt gtctacatct tggatcaagt gcgcgctatg 60
gagaacgaaa tgctgctgaa ggatcaaagc agtgtgggtc ttaacatcac gccgaagatc 120
cttattgtca ccaggttgct cctgatgca actggcacca cctgtggcca gcgccttgag 180
aaggctccttg gcaccgagca ctgccatata cttcgcgtgc cattcagaac agaaaacgga 240
atcgttcgca agtggatctc gcgatttgac atctggccgt acctggagac ttacactgat 300

gacgtggcgc atgagat

317

<210> 560
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 560

cgagattgag gagctcctgt acagccaaac cgagaacacg gagcacaagt tcgttctgaa 60
cgacaggacc aagccaatca tcttctccat ggctcgtctc gaccgtgtga agaacttgac 120
tgggctgggtg gagctgtacg gccggaacaa gcggctgcag gagctgggtga acctcgtggt 180
cgtctgcggc gaccatggca acccttccaa ggacaaggag gagcaggccg agttcaagaa 240
gatgtttgac ctcatcgagc agtacaacct gaacgggcac atccgctgga tctccgcca 300
gatgaac 307

<210> 561
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 561

gtttgaggat cactaccact tctcgtgcc a gttcaccact gacttgattg caatgaacca 60
tgccgacttc atcatcacca gtaccttcca agagatcgcc ggaaacaagg acaccgtcgg 120
ccagtacgag tcacacatgg cgttcacaat gcctggcctg taccgcgttg tccacggcat 180
tgatgtgttc gaccccaagt tcaacatcgt gtctcctggc gcggacctgt ccatctactt 240
cccgtacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 300
gtacagc 307

<210> 562
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 562

cggacatcta cttggacaag ttcgacagcc agtaccactt ctcttgccag ttcacagctg 60
accttattgc catgaaccac actgatttca tcatcaccag cacattccaa gaaatcgcg 120

gaagcaagga caccgtgggg cagtaacgagt cccacatcgc gttcactctt cctgggctct 180
accgtgtcgt ccatggcatc gatgttttcg atcccaagtt caacattgtc tcccctggag 240
cagacatgag tgtttactac ccgtatacgg aaaccgacaa gagactcact gccttccatc 300
ctgaaatcga ggag 314

<210> 563
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 563

gagatgcttc tgaggattaa gcagcaaggc cttgatatca ctccgaagat cctcattgtt 60
accaggctgt tgccatgatgc tgctgggact acgtgcggtc agcggctgga gaaggtcatt 120
ggatctgagc acacagacat cattcgcgtt ccgttcagaa atgagaatgg catcctccgc 180
aagtggatct ctcgttttga tgtctggcca tacctggaga catacactga ggatgtttcc 240
agtgaataa tgaaagacat gcaggccaag cctgacctta tcattggcaa ctacagcgat 300
ggcaa 305

<210> 564
<211> 316
<212> nucleic acid
<213> Zea mays

<400> 564

gtggttgagg ccatgacctg cggcctgccc acgtttgcca cagcctacgg cgggtccggcc 60
gagatcatcg tgcacggcgt gtctggctac cacatcgacc cttaccaggg cgacaaggcg 120
tcggccctgc tcgtggactt cttcgacaag tgccaggcgg acccgagcca ctggagcaag 180
atctcccagg gcgggctcca gcgtatcgag gagaagtaca cctggaagct ctactcggag 240
aggctgatga ccctcaccgg cgtgtacggg ttctggaagt acgtgtccaa cctggagagg 300
cgcgagaccc ggcggt 316

<210> 565
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 565
 atgccgactt catcatcacc agtaccttcc aagagatcgc cggaaacaag gacaccgtcg 60
 gccagtacga gtcacacatg gcgttcacaa tgcctggcct gtaccgcgtt gtccacggca 120
 ttgatgtgtt cgaccccaag ttcaacatcg tgtctcctgg cgcggacctg tccatctact 180
 tcccgtagac cgagtcgcac aagaggctga cctcccttca cccggagatt gaggagctcc 240
 tgtacagcca aaccgagaac acggagccca agttcgttct gaacgacagg aacaagccaa 300
 tcatct 306

<210> 566
 <211> 310
 <212> nucleic acid
 <213> Zea mays

<400> 566
 gttcggcctg actgtgatcg agtccatgac gtgcggtctg ccaacgatcg cgacctgcca 60
 tgggtggccct gctgagatca tcgtggacgg ggtatctggc ctgcacattg accettacca 120
 cagcgacaag gccgcggata tcctgggtcaa cttctttgac aaatgcaagg cagatccgag 180
 ctactgggac aagatctcac agggcggcct gcagagaatt tatgagaagt acacctggaa 240
 gctctactcc gagaggctga tgaccctgac cggcgtgtac gggttctgga agtacgtgag 300
 caacctggag 310

<210> 567
 <211> 320
 <212> nucleic acid
 <213> Zea mays

<400> 567
 cccacgcgtc cggcgatttg aagtctggcc gtacctggag acttacactg atgacgtggc 60
 gcatgagatt gctggagagc ttcaggccaa tcctgacctg atcatcggaa actacagtga 120
 cggaaacctt gttgcgtgtt tgetcgccca caagatgggt gttactcact gtaccattgc 180
 ccatgcgctt gagaaaaacta agtaccctaa ctccgacctc tactggaaga agtttgagga 240
 tcactaccac ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt 300
 catcatcacc agtaccttcc 320

<210> 568
 <211> 311
 <212> nucleic acid
 <213> Zea mays

 <400> 568

 ggccgagttc aagaagatgt ttgacctcat cgagcagtac aacctgaacg ggcacatccg 60
 ctggatctcc gccagatga accgcgtccg caacggcgag ctgtaccgct acatctgcga 120
 caccaagggc gccttcgtgc agcctgcttt ctacgagget ttcgggctga cggtggttga 180
 ggccatgacc tgcggcctgc ccacgttcgc caccgcctac ggcgtccggc cgagatcatc 240
 gtgcacggcg tgtctggcta ccacatcgac ccttaccagg gcgacaaggc gtcggccctg 300
 ctctggact t 311

<210> 569
 <211> 313
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (32)
 <223>

 <400> 569

 gtctgggagt atgtgagggt caacgtcatg angctcgtg ttgaggagct gagagttcct 60
 gagtacctgc agttcaagga acagcttgtg gaagaaggcc ccaacaacaa ctttgttctt 120
 gagctggact ttgagccatt caatgcctcc ttccccgctc cttctctgtc aaagtccatt 180
 ggcaatggcg tgcagttcct caacaggcac ctgtcatcaa agctcttcca tgacaaggag 240
 agcatgtacc ccttgcctca cttccttcgc gccacaaact acaaggggat gaccatgatg 300
 ttgaacgaca gaa 313

<210> 570
 <211> 309
 <212> nucleic acid
 <213> Zea mays

 <400> 570

 accaagggcg ccttcgtgca gcctgctttc tacgaggett tcgggctgac ggtggttgac 60

<212> nucleic acid
<213> Zea mays

<400> 573

gacaccgtcg gccagtagca gtcacacatg gcgttcacaa tgccctggcct gtaccgcgtt 60
gtccacggca ttgatgtgtt cgaccccaag ttcaacatcg tgtctcctgg cgcggacctg 120
tccatctact tcccgtacac cgagtcgcac aagaggetga cctcccttca cccggagatt 180
gaggagctcc tgtacagcca aaccgagaac acggagcaca agttcgttct gaacgacagg 240
aacaagccaa tcatctttct catggctcgt ctcgaccgtg tgaagaactt gactgggttg 300
gtggag 306

<210> 574
<211> 332
<212> nucleic acid
<213> Zea mays

<400> 574

ctcggagagg ctgatgacct tcaccggcgt gtacgggttc tggaagtacg tgtccaacct 60
ggagacgcgc gagaccggc ggtacctgga gatgctgtac gcgctcaagt accgcacat 120
ggcgagcacc gtgcgcgtgg ccgtggaggg agagccctcc agcaagtgat gcgtgacggc 180
ggccacagac ctgatcgatc gatgagcgag agggagcact cggagtgtcg tgtcttttcc 240
cttgccattt ctttctttct tcttttctt tcccggaggg gaaaaaaaaa gagtctgcat 300
ttgctaggcg gcggggcgtt gttgctgctc tt 332

<210> 575
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 575

ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggagccag gttgtctaca 60
tcttgatca agtgcgcgt atggagaacg aaatgctgct gaggatcaag cagtgtggtc 120
ttgacatcac gccgaagatc cttattgtca ccaggttgct ccctgatgca actggcacca 180
cctgtggcca gcgacttgag aaggctcttg gcaccgagca ctgccatata cttcgcgtgc 240
cattcagaac agaaaacgga atcgcttcga agtggatctc gcgatttgaa gtctggccgt 300

acctggaga

309

<210> 576
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 576

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cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg cggcctgccc 120
acgtttgccca cagcctacgg cgggtccggcc gagatcatcg tgcacggcgt gtctggctac 180
cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 240
tgccaggcgg acccgagcca ctggagcaag atctcccagg gcgggctcca gcgtatcgag 300
gagaag 306

<210> 577
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 577

cggagcacaa gttcgttctg aacgacagga acaagccaat catcttctcc atggctcgtc 60
tcgaccgtgt gaagaacttg actgggctgg tggagctgta cggccggaac aagcggctgc 120
aggagctggt gaacctcgtg gtcgtctgcg gcgaccatgg caacccttcc aaggacaagg 180
aggagcaggc cgagttcaag aagatgtttg acctcatcga gcagtacaac ctgaacgggc 240
acatccgctg gatctccgcc cagatgaacc gcgtccgcaa cggcgagctg taccgctaca 300

<210> 578
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 578

ctcggttctg aaccagtggt cttggttgcgt gtttgctcgc ccacaagatg ggtgttactc 60
actgtaccat tgcccatgcg cttgagaaaa ctaagtaccc taactccgac ctctactgga 120
agaagtttga ggatcactac cacttctcgt gccagttcac cactgacttg attgcaatga 180

accatgccga cttcatcatc accagtacct tccaagagat cgccggaaac aaggacaccg 240
 tcggccagta cgagtcacac atggcggttca caatgcctgg cctgtaccgc gttgtccacg 300
 gcattgatgt gttcgacccc aa 322

<210> 579
 <211> 336
 <212> nucleic acid
 <213> Zea mays

<400> 579

ccctgatgca actggcacca cctgtggcca ggccttgag aaggtccttg gcaccgagca 60
 ctgccatata cttcgcggtgc cattcagaac agaacacgga atcgctcgcc agtggatctc 120
 gcgatttgaa gtctggcogt acctggagac ttacactgat gacgtggcgc atgagattgc 180
 tggagagctt caggccaatc ctgacctgat catcggaac tacagtgacg gaaaccttgt 240
 tgcgtgtttg ctgcccaca agatgggtgt tactcactgt accattgccc atgcgcttag 300
 aacactaagt acgctaactc cgacctctac tggaag 336

<210> 580
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<400> 580

gagaatttat gagaagtaca cctggaagct ctactccgag aggctgatga ccctgaccgg 60
 cgtgtacggg ttctggaagt acgtgagcaa cctggagagg cgcgagaccc gccgctacat 120
 cgaaatgttc tacgccctga agtaccgtag cctggcaagc caggttccgc tgccttcga 180
 ttagtacggg gaaagaagaa gcccaggccg gagaaccatc gcctgcattt cgatctgttt 240
 caccgcaatt cgcattgtta gtcgtgtatt ggagttatgt gtacttggtt tccaagaact 300
 ttg 303

<210> 581
 <211> 304
 <212> nucleic acid
 <213> Zea mays

<400> 581

gaccttcttg aggccctga tcctgccaac ttggagaagt tccttggaac tataccaatg 60
atgttcaatg ttgttatcct ttctcctcat ggctacttcg ctgagtcctaa tgtgcttgga 120
taccctgaca ctggcgggtca ggttgtgtac attctggatc aagtccgtgc tttggagaat 180
gagatgcttc tgaggattaa gcagcaaggc cttgatatca ctccgaagat cctcattggt 240
accaggtgtg tgctgatgc tgctgggact acgtgcggtc agcggctgga gaaggtcatt 300
ggta 304

<210> 582
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 582

aagaaatcgc gggaagcaag gacaccgtgg ggcagtacga gtcccacatc gcgttcactc 60
ttcctgggct ctaccgtgtc gtccatggca tcgatgtttt cgatcccaag ttcaacattg 120
tctcccctgg agcagacatg agtggttact acccgatatac ggaaaccgac aagagactca 180
ctgccttcca tcctgaaatc gaggagctca tctacagcga cgtcgagaac tccgagcaca 240
agttcgtgct gaaggacaag aagaagccga tcattctctc gatggcgcggt ctcgaccgcg 300
tgaa 304

<210> 583
<211> 299
<212> nucleic acid
<213> Zea mays

<400> 583

cgcgctatgg agaacgaaat gctgctgagg atcaagcagt gtggtcttga catcacgccg 60
aagatcctta ttgtcaccag gttgctccct gatgcaactg gcaccacctg tggccagcgc 120
cttgagaagg tccttggcac cgagcactgc catatccttc gcgtgccatt cagaacagaa 180
aacggaatcg ttgcgaagtg gatctcgca tttgaagtct ggccgtacct ggagacttac 240
actgatgacg tggcgcatga gattgctgga gagcttcagg ccaatcctga cctgatcat 299

<210> 584
<211> 299

<212> nucleic acid
<213> Zea mays

<400> 584

gagaaaacta agtaccctaa ctccgacctc tactggaaga agtttgagga tcaactaccac 60
ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt catcatcacc 120
agtaccttcc aagagatcgc cggaaacaag gacaccgctc gccagtacga gtcacacatg 180
gcgttcacaa tgcttggcct gtaccgcgtt gtccacggca ttgatgtgtt cgaccccaag 240
ttcaacatcg tgtctcctgg cgcggacctg tccatctact tcccgtacac cgagtcgca 299

<210> 585
<211> 296
<212> nucleic acid
<213> Zea mays

<400> 585

ggcaccacct gtggccagcg ccttgagaag gtccttggca ccgagcactg ccatatcctt 60
cgcgtgccat tcagaacaga aaacggaatc gttcgcaagt ggatctcgcg atttgaagtc 120
tggccgtacc tggagactta cactgatgac gtggcgcacg agattgctgg agagcttcag 180
gccaatcctg acctgatcat cggaaactac agtgacggaa accttgttgc gtgtttgctc 240
gcccacaaga tgggtgttac tcaactgtacc attgcccacg cgcttgagaa aactaa 296

<210> 586
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 586

acttgactgg gctggtggag ctgtacggcc ggaacaagcg gctgcaggag ctggtgaacc 60
tcgtggtcgt ctgcggcgac catggcaacc cttccaagga caaggaggag caggccgagt 120
tcaagaagat gtttgacctc atcgagcagt acaacctgaa cgggcacatc cgctggatct 180
ccgcccagat gaaccgcgtc cgcaacggcg agctgtaccg ctacatctgc gacaccaagg 240
gcgccttcgt gcagcctgct ttctacgagg ctttcgggct gacggtgggt gaggccatga 300
c 301

<210> 587
 <211> 293
 <212> nucleic acid
 <213> Zea mays

 <400> 587

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 cgcgctatgg agaacgaaat gctgctgagg atcaagcagt gtggtcttga catcacgccg 120
 aagatcctta ttgtcaccag gttgctccct gatgcaactg gcaccacctg tggccagcgc 180
 cttgagaagg tccttggcac cgagcactgc catatccttc gcgtgccatt cagaacagaa 240
 aacggaatcg ttcgcaagtg gatctcgca tttgaagtct ggccgtacct gga 293

<210> 588
 <211> 296
 <212> nucleic acid
 <213> Zea mays

 <400> 588

 catggctcgt ctcgaccgtg tgaagaactt gactgggctg gtggagctgt acggccggaa 60
 caagcggctg caggagctgg tgaacctcgt ggctcgtctgc ggcgaccatg gcaacccttc 120
 caaggacaag gaggagcagg ccgagttcaa gaagatgttt gacctcatcg agcagtacaa 180
 cgtgaacggg cacatccgct ggatctccgc ccagatgaac cgcgtccgca acggcgagct 240
 gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag cctgctttct acgagg 296

<210> 589
 <211> 305
 <212> nucleic acid
 <213> Zea mays

 <400> 589

 cccacgcgtc cggagattgc tggagagcat caggccaatc ctgacctgat catcggaaac 60
 tacagtgacg gaaaccttgt tgcgtgtttg ctcgcccaca agatgggtgt tactcactgt 120
 accattgccc atgcgcttga gaaaactaag taccctaact ccgacctcta ctggaagaag 180
 tttgaggatc actaccactt ctcgtgccag ttcaccactg acttgattgc aatgaaccat 240
 gccgacttca tcatcaccag taccttccaa gagatcgccg gaaacaagga caccgtcggc 300
 cagta 305

<210> 590
 <211> 297
 <212> nucleic acid
 <213> Zea mays

 <400> 590

 ctctgtaca gccaaaccga gaacacggag cacaagttcg ttctgaacga caggaacaag 60
 ccaatcatct tctccatggc tcgtctcgac cgtgtgaaga acttgactgg gctgggtggag 120
 ctgtacggcc ggaacaagcg gctgcaggag ctgggtgaacc tcgtgggtcgt ctgcggcgac 180
 catggcaacc cttccaagga caaggaggag caggccgagt tcacgaagat gtttgacctc 240
 atcgagcagt acaacctgaa cgggcacatc cgctggatct ccgcgcagat gaaccgc 297

<210> 591
 <211> 299
 <212> nucleic acid
 <213> Zea mays

 <400> 591

 gccaatcatc ttctccatgg ctctgtctga ccgtgtgaag aacttgactg ggctgggtgga 60
 gctgtacggc cggaacaagc ggctgcagga gctgggtgaac ctctgggtcgt tctgcggcga 120
 ccatggcaac cttccaagg acaaggagga gcaggccgag ttcaagaaga tgtttgacct 180
 catcgagcag tacaacctga acgggcacat ccgtggatc tccgcccaga tgaaccgcgt 240
 ccgcaacggc gagctgtacc gctacatctg cgacaccaag ggcgccttcg tgcagcctg 299

<210> 592
 <211> 299
 <212> nucleic acid
 <213> Zea mays

 <400> 592

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 cagcacattc caagaaatcg cgggaagcaa ggacaccgtg gggcagtacg agtcccacat 120
 cgcgttcaact cttcctgggc tctaccgtgt cgtccatggc atcgatgttt tcgatcccaa 180
 gttcaacatt gtctcccctg gagcagacat gagtgtttac taccctata cggaaaccga 240
 caagagactc actgccttcc atcctgaaat cgaggagctc atctacagcg acgtcgaga 299

<210> 593
 <211> 295
 <212> nucleic acid
 <213> Zea mays

 <400> 593

 caatgcctgg cctgtaccgc gttgtccacg gcattgatgt gttcgacccc aagttcaaca 60
 tcgtgtctcc tggcgcgaggac ctgtccatct acttcccgtc caccgagtcg cacaagaggc 120
 tgacctccct tcacccggag attgaggagc tcctgtacag ccaaaccgag aacacggagc 180
 acaagttcgt tctgaacgac aggaacaagc caatcatctt ctccatggct cgtctcgacc 240
 gtgtgaagaa cttgactggg ctggtggagc tgtacggccg gaacaagcgg ctgca 295

<210> 594
 <211> 302
 <212> nucleic acid
 <213> Zea mays

 <400> 594

 ctagtcgcca ctctgctcgc acacaagttg ggagtcactc agtgtaccat cgctcatgcc 60
 ttggagaaaa ccaaataccc caactcggac atctacttgg acaagttcga cagccagtac 120
 cacttctctt gccagttcac agctgacctt attgccatga accacactga tttcatcatc 180
 accagcacat tccaagaaat cgcgggaagc aaggacaccg tggggcagta cgagtccac 240
 atcgcgttca ctcttctcgg gctctaccgt gtcgtccatg gcatcgatgt tttcgatccc 300
 aa 302

<210> 595
 <211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 595

 ctcggtgcag atgaaccgag tccgcaacgg ggagctgtac cgctacattt gcgataccaa 60
 gggcgcatte gtgcagcctg cgttctacga agcgttcggc ctgactgtga tcgagtccat 120
 gacgtgcggt ctgccaaaga tcgcgacctg ccatgggtggc cctgctgaga tcacgtgga 180
 cggggatatct ggctgcaca ttgaccctta ccacagcgac aaggccgcgg atatcctggt 240

caacttcttt gacaaatgca aggcagatcc gagctactgg gacaagatct cacagggcgg 300
cctgcagaga attt 314

<210> 596
<211> 356
<212> nucleic acid
<213> Zea mays

<400> 596

ctaccgtgtc gtccatggca tcgatgtatt cgacacaagt tcaacattgt ctcccctgga 60
gcagacatga gtgattacta cccgtatacg gaaacccgac aagagactca ctgccttcca 120
tcttgaaatc gatgagctca tctacagcga cgtcgagaac tccgagcaca agttcgtgct 180
gaaggacaag aagaagccga tcatcttctc gatagcgcga ctcgaccgcg tgaagagaca 240
tgacaggcct ggctcgagatg tacggcaaga acgcgcgcct gagggagctg gcgaacctcg 300
tgatcgttgc cggtgaccac ggcaaggagt ccaaggacag ggaggagcag gcggag 356

<210> 597
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 597

gtggatctct cgttttgatg tctggccata cctggagaca tacactgagg atgtttccag 60
tgaaataatg aaagaaatgc aggccaagcc tgaccttatac attggcaact acagcgatgg 120
caacctagtc gccactctgc tcgcgcacaa gttgggagtc actcagtgtg ccatcgctca 180
tgccctggag aaaaccaaact accccaactc ggacatatac ttggacaaat tcgacagcca 240
gtaccacttc tcttgccagt tcacagctga ccttattgcc atgaaccaca ccgatttcat 300
catcacc 307

<210> 598
<211> 319
<212> nucleic acid
<213> Zea mays

<400> 598

cggacgcgtg ggtaccactt ctctgcccag ttcaccactg acttgattgc aatgaaccat 60

gccgacttca tcatcaccag taccttccaa gagatcgccg gcaacaagga caccgtcggc 120
 cagtacgagt cacacatggc gttcacaatg cctggcctgt accgcgttgt ccacggcatt 180
 gatgtgttcg accccaagtt caacatcgtg tctcctggcg cggacctgtc catctacttc 240
 ccgtacaccg agtcgcacaa gaggctgacc tcccttcacc cggagattga ggagctcctg 300
 tacagccaaa ccgagaaca 319

<210> 599
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (243)
 <223>

<400> 599

ggcgagctgt accgctacat ctgcgacacc aagggcgccct tcgtgcagcc tgctttctac 60
 gaggctttcg ggctgacggt ggttgacgcc atgacctgcg gcctgcccac gttcgccacc 120
 gcctacggcg gtccggccga gatcatcgtg cacggcgtgt ctggctacca catcgaccct 180
 taccagggcg acaaggcgtc ggccctgctc gtggacttct tcgacaagtg ccaggcggag 240
 cgnagccact ggagcaagat ctcccagggc gggctccagc gtatcgagga gaagtacacc 300
 tgg 303

<210> 600
 <211> 291
 <212> nucleic acid
 <213> Zea mays

<400> 600

cccttcaccc ggagattgag gagctcctgt acagccaaac cgagaacacg gagcacaagt 60
 tcgtttctgaa cgacaggaac aagccaatca tcttctccat ggctcgtctc gaccgtgtga 120
 agaacttgac tgggctggtg gagctgtacg gccggaacaa gcggctgcag gagctggtga 180
 acctcgtggt cgtctgcggc gaccatggca acccttccaa ggacaaggag gagcaggccg 240
 agttcaagaa gatgtttgac ctcatcgagc agtacaacct gaacgggcac a 291

<400> 606

ggacctgggc cgagttcaag aagatgtttg acctcatcga gcagtacaac ctgaacgggc 60

acatccgctg gatctccgcc cactatgaac cgcgtccgca acggcgagct gtaccgctac 120

atctgcgaca ccaagggcgc cttcgtgcag cctgctttct acgaggcttt cgggctgacg 180

gtggttgagg ccatgacctg cggcctgccc acgtttgcc aagcctacgg cgggtccggcc 240

gagatcatcg tgcacggcgt gtctgggtac cacatcgacc cttaccaggg cgacaaggcg 300

tcggcc 306

<210> 607

<211> 293

<212> nucleic acid

<213> Zea mays

<400> 607

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cgtgccaaagt caccactgac ttgattgcaa tgaaccatgc cgacttcac atcaccagta 120

ccttccaaga gatcgccgga aacaaggaca ccgtcggcca gtacgagtca cacatggcgt 180

tcacaatgcc tggcctgtac cgcgttggtc acggcattga tgtgttcgac cccaagttca 240

acatcgtgtc tccgtggcgc gacctgtcca tctacttccc gtacaccgag tcg 293

<210> 608

<211> 314

<212> nucleic acid

<213> Zea mays

<400> 608

ccttggcacc gagcactgcc atatccttcg cgtgccattc agaacagaaa acggaatcgt 60

tcgcaagtgg atctcgcgat ttgaagtctg gccgtacctg gagacttaca ctgatgacgt 120

ggcgcacgag atagctggag agcttcaggc caatcctgac ctgatcatcg gaaactacag 180

tgacggaaac cttgttgctg gtttgctcgc ccacaagatg ggtgttactc actgtacat 240

tgcccatgcy cttgagaaaa ctaagtaccc taactccgac ctctactgga agaagtctga 300

ggatcactac cact 314

<210> 609
 <211> 313
 <212> nucleic acid
 <213> Zea mays

 <400> 609

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 agctgtaccg ctacatctgc gacaccaagg gcgccttcgt gcagcctgct ttctacgagg 120
 ctttcggggt gacggtgggt gaggccatga cctgcggcct gcccacgttc gccaccgcct 180
 acggcggtcc ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc 240
 agggcgacaa ggcgtcggcc ctgctcgtgg acttcttcga caagtgccag gcggagcgag 300
 ccactggagc aag 313

<210> 610
 <211> 295
 <212> nucleic acid
 <213> Zea mays

 <400> 610

 gttcaacatc gtgtctctcg gcgcggacct gtccatctac ttcccgtaca ccgagtcgca 60
 caagaggctg acctcccttc acccgagat tgaggagctc ctgtacagcc aaaccgagaa 120
 cacggagcac aagttcgttc tgaacgacag gaacaagcca atcatcttct ccatggctcg 180
 tctcgaccgt gtgaagaact tgactgggct ggtggagctg tacggccgga acaagcggct 240
 gcaggagctg gtgaacctcg tggctcgtctg cggcgaccat ggcaaccctt ccaag 295

<210> 611
 <211> 310
 <212> nucleic acid
 <213> Zea mays

 <400> 611

 ccggaggcaa aaaaagagtc tgcttttgc aggcggcggg cgttcggtgc tgctctttgc 60
 ttcaagagtt aaatttacct accttgtcaa ggtcttggtc catcattgat ccgggtgtcg 120
 cttttttagt agtctgatgg actgttagta gtttgcggtg cgtcgggtga gagggaacgt 180
 tggtggtggt ggtgtgtgtg cagtcaggcg tgggtgctccc ttgttttctt ggatgggatg 240
 ttgctccttg aataataatc gtagtggcct tggagccctt ttctgaaat aagagcagca 300

tcctagtgt 310

<210> 612
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 612

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tgaaccgcgt ccgcaacggc gagctgtacc gctacatctg cgacaccaag ggcgccttcg 120
tgcagcctgc tttctacgag gctttcgggc tgacggtggt tgaggccatg acctgcggcc 180
tgcccacgtt cgccaccgcc tacggcggtc cgcccgagat catcgtgcac ggcgtgtctg 240
gtaccacat cgacccttac cagggcgaca aggcgtcggc cctgctcgtg gacttcttcg 300
acaagtg 307

<210> 613
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 613

cactccctac tcggagttca accataggtt ccaagagctt ggtttggaga agggttgggg 60
tgacactgcg aacgtgtact cgacacactc cacttgcttc ttgaccttct tgaggcccct 120
gatcctgcc aattggagaa gttccttgga actataccaa tgatgttcaa tgttgttatc 180
ctttctctc atggctactt cgctcagtcc aatgtgcttg gataccctga cactggcggt 240
caggttgtgt acattctgga tcaagtccgt gctttggaga atgagatgct tctgaggatt 300
aa 302

<210> 614
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 614

acagccaaac cgagaacacg gagcacaagt tcgttctgaa cgacaggaac aagccaatca 60
tcttctccat ggctcgtctc gaccgtgtga agaacttgac tgggctggtg gagctgtacg 120

aagttccttg gaacgatccc catggtgttc aatgtcgta tcctctcccc tcatggttac 120
 ttogctcaag ctaatgtctt gggttaccct gacaccggag gccagggttg ctacatcttg 180
 gatcaagtgc gcgctatgga gaacgaaatg ctgctgagga tcaagcagtg tggctcttgac 240
 atcacgccga agatccttat tgtcaccagg ttgctccctg atgcaactgg caccacctgt 300
 g 301

<210> 618
 <211> 294
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (150)
 <223>

<400> 618
 acctgcggcc tgcccacgtt cgccaccgcc tacgggggtc cggccgagat catcgtgcac 60
 ggcgtgtctg gctaccacat cgacccttac cagggcgaca aggcgtcggc cctgctcgtg 120
 gacttcttcg acaagtgccg ggcggagcgn agccactgga gcaagatctc ccagggcggg 180
 ctccagcgta tcgaggagaa gtacacctgg aagctgtact cggagaggct gatgaccctc 240
 accggcgtgt acgggttctg gaagtacgtg tccaacctgg agaggcgcca gacc 294

<210> 619
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 619
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 ccatggcaac ccttccaagg acaaggagga gcaggccgag ttcaagaaga tgtttgacct 120
 catcgagcag tacaacctga acgggcacat ccgctggatc tccgcccaaga tgaaccgcgt 180
 ccgcaacggc gagctgtacc gctacatctg cgacaccaag ggcgccttcg tgcagcctgc 240
 tttctacgag gctttcgggc tgacggtggt tgaggccatg acctgcg 287

<210> 620

<211> 303
 <212> nucleic acid
 <213> Zea mays

<400> 620

agctcctgta cagccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 60
 agccaatcat cttctccatg gctcgtctcg accgtgtgaa gaacttgact gggctggtgg 120
 agctgtacgg ccggaacaag cggctgcagg agctggtgaa cctcgtggtc gtctgcggcg 180
 accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttgacc 240
 tcatcgagca gtacaacctg aacgggcaca tccgctggat ctccgcccag atgaaccgcg 300
 tcc 303

<210> 621
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 621

ccaagttcaa catcgtgtct cctgggcggg acctgtccat ctacttcccg tacaccgagt 60
 cgcacaagag gctgacctcc cttcaccggg agattgagga gtcctgttac agccaaaccg 120
 agaacacgga gccacaagtt cgttctgaac gacaggaaca agccaatcat cttctccatg 180
 gctcgtctcg accgtgtgaa gaacttgact gggctggtgg agctgtacgg ccggaacaag 240
 cggctgcagg agctggtgaa cctcgtggtc gtctgcggcg accatggcaa cccttcca 298

<210> 622
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (298)
 <223>

<400> 622

aacctgaacg ggcacatccg ctggatctcc gccagatga accgcgtccg caacggcgag 60
 ctgtaccgct acatctgcga caccaagggc gccttcgtgc agcctgcttt ctacgaggct 120
 ttcgggctga cgggtggttg ggccatgacc tgcggcctgc ccacgttcgc caccgcctac 180

ggcgggtccgg ccgagatcat cgtgcacggc gtgtctggct accacatcga cccttaccag 240
 ggcgacaagg cgtcggccct gtcgtggac ttcttcgaca agtgccaggc ggagcggangc 300
 cactgg 306

<210> 623
 <211> 292
 <212> nucleic acid
 <213> Zea mays

<400> 623

actcggagag gctgatgacc ctcaccggcg tgtacgggtt ctggaagtac gtgtccaacc 60
 tggagaggcg cgagaccggc cggtagcttg agatgctgta cgcgctcaag taccgcacca 120
 tggcgagcac cgtgccgctg gccgtggagg gagagccctc cagcaagtga tgcgcgacgg 180
 cggccacaga cctgatcgat cgatgagcga gaggggagcac tcggagtgtc gtgtcttttc 240
 ccttgccatt tctttctttt tttcccttcc cggaggcgaa aaaaagagtc tg 292

<210> 624
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 624

caggccaatc ctgacctgat catcggaac tacagtgcgc gaaaccttgt tgcgtgtttg 60
 ctcgcccaca agatgggtgt tactcactgt accattgccc atgcgcttga gaaaactaag 120
 taccctaact ccgacctcta ctggaagaag tttgaggatc actaccactt ctcgtgccag 180
 ttcaccactg acttgattgc aatgaaccat gccgacttca tcatcaccag taccttccaa 240
 gagatcgccg gaaacaagga caccgtcggc cagtacgagt cac 283

<210> 625
 <211> 289
 <212> nucleic acid
 <213> Zea mays

<400> 625

ggcgaacctc gtgatcgctc ccggtgacca cggcaaggag tccaaggaca gggaggagca 60
 ggcggagtgc aagaagatgt acagcctcat cgacgagtac aagttgaagg gccatatccg 120

gtggatctcg ggcagatga accgcgtccg caacggggag ctgtaccgct acatttgca 180
 taccaagggc gcattcgtgc agcctgcgtt ctacgaagcg ttcgggctga ctgtgatcga 240
 gtccatgacg tgcgggtctgc caacgatcgc gacctgccat ggtggccct 289

<210> 626
 <211> 295
 <212> nucleic acid
 <213> Zea mays

<400> 626

cccacgcgtc cgcttggatc aagtgcgcgc tatggagaac gaaatgctgc tgaggatcaa 60
 gcagtgtggt cttgacatca cgccgaagat ccttattgtc accaggttgc tccctgatgc 120
 aactggcacc acctgtggcc agcgccttga gaaggtcctt ggcaccgagc actgccatat 180
 ccttcgcgtg ccattcagaa cagaaaacgg aatcggtcgc aagtggatct cgcgatttga 240
 agtctggccg tacctggaga cttacactga tgacgtggcg catgagattg ctgga 295

<210> 627
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 627

ggagaacgaa atgctgctga ggatcaagca gtgtggtcctt gacatcacgc cgaagatcct 60
 tattgtcacc aggttgcctc ctgatgcaac tggcaccacc tgtggccagc gccttgagaa 120
 ggtccttggc accgagcaact gccatatcct tcgcgtgcca ttcagaacag aaaacggaat 180
 cgttcgcaag tggatctcgc gatttgaagt ctggccgtac ctggagactt aactgatga 240
 cgtggcgcac gagattgctg gagagcttca ggccaatcct gac 283

<210> 628
 <211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 628

cccacgcgtc cgtgagtgtt tactaccgt atacggaaac cgacaagaga ctactgcct 60
 tccatcctga aatcgaggag ctcatctaca gcgacgtcga gaactccgag cacaagtctg 120

<213> Zea mays

<400> 634

ggaggagcag gccgagttca agaagatggt tgacctcatc gagcagtaca acctgaacgg 60
gcacatccgc tggatctccg cccagatgaa ccgcgtccgc aacggcgagc tgtaccgcta 120
catctgcgac accaagggcg ccttcgtgca gcttgccttc tacgaggctt tcgggctgac 180
ggtgggtgag gccatgacct gcggcctgcc cacttccgcc accgcctacg ggggtccggc 240
cgagatcatc gtgcacggcg tgtcgggcta ccacatcgac ccttac 286

<210> 635

<211> 281

<212> nucleic acid

<213> Zea mays

<400> 635

ccgtcggcca gtacgagtca cacatggcgt tcacaatgcc tggcctgtac cgcgttgtcc 60
acggcattga tgtgttcgac cccaagttca acatcgtgtc tcctggcgcg gacctgtcca 120
tctacttccc gtacaccgag tcgcacaaga ggtgacctc ccttcacccg gagattgagg 180
agctcctgta cagccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 240
agccaatcat cttctccatg gctcgtctcg accgtgtgaa g 281

<210> 636

<211> 282

<212> nucleic acid

<213> Zea mays

<400> 636

ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggaggcca ggttgtctac 60
atcttggatc aagtgcgcgc tatggagaac gaaatgctgc tgaggatcaa gcagtgtggt 120
cttgacatca cgcgaagat ccttattgtc accaggttgc tccctgatgc aactggcacc 180
acctgtggcc agcgccttga gaaggtcctt ggcaccgagc actgccatat ccttcgcgtg 240
ccattcagaa cagaaaacgg aatcgttcgc aagtggatct cg 282

<210> 637

<211> 279

<212> nucleic acid

<213> Zea mays

<400> 637

catactctga atttcaccac aggttccagg aacttgggtct ggagaagggg tgggggtgatt 60
 gcgctaagcg tgcacaggag actatccacc tctctttgga cctcctggag gccccagatc 120
 cgtccaccct ggagaagttc cttggaacga tccccatggg gttcaatgtc gttatcctct 180
 cccctcatgg ttacttcgct caagctaattg tcttgggtta ccttgacacc ggaggccagg 240
 ttgtctacat cttggatcaa gtgcgcgcta tggagaacg 279

<210> 638

<211> 356

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (280)

<223>

<400> 638

cgcgtttgtt ccggccgtac agctccacca gcccagtcaa gttcttcaca cggtcgagac 60
 gagccatgga gaagaccatt ggcttgttcc tgtcgttcag aacgaacttg tgctccgtgt 120
 tctcggtttg gctgtacagg agctcctcaa tctccgggtg aagggagggtc agcctcttgt 180
 gcgactcggg gtacgggaag tagatggaca ggtccgcgcc aggagacacg atgttgaact 240
 tggggtcgaa cacatcaatg ccgtggacaa cgcggtacan gccaggcatt gtgaacgcca 300
 tgtgtgactc gtactggccg acggtgtcct tgtttccggc gatctctatg gaagta 356

<210> 639

<211> 288

<212> nucleic acid

<213> Zea mays

<400> 639

accacttctc gtgccagttc accactgact tgattgcaat gaaccatgcc gacttcatca 60
 tcaccagtac cttccaagag atcgccggaa acaaggacac cgtcggccag tacgagtcac 120
 acatggcggt cacaatgcct ggctgtacc gcgttggtcca cggcattgat gtgttcgacc 180
 ccaagttcaa catcgtgtct cctggcgcgg acctgtccat ctacttcccg tacaccgagt 240

cgcacaaagag gctgacctcc cttcacccgg agattgagga gctcctgt 288

<210> 640
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 640

ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa 60
ggcgtcggcc ctgctcgtgg acttcttcga caagtgccag gcggagcgag tccactggag 120
caagatctcc cagggcgggc tccagcgtat cgaggagaag tacacctgga agctgtactc 180
ggagaggctg atgacctca ccggcgtgta cgggttctgg aagtacgtgt ccaacctgga 240
gaggcgcgag acccggcggg acctggagat gctgtacgcg ctcaagtacc gcac 294

<210> 641
<211> 311
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (13), (37), (72), (263)
<223> unsure at all n locations

<400> 641

cggacgcttg gtntcgacaa gtgccaggcg gagcgangcc actggagcaa gatctcccag 60
ggcgggctcc angcgtatcg aggagaagta cacctggaag ctgtactcgg agaggctgat 120
gacctcacc ggcgtgtaag ggttctggaa gtacgtgtcc aacctggaga ggcgcgagac 180
ccggcggtac ctggagatgc tgtacgcgct caagtaccgc accatggcga gcacctgccc 240
gctggccgtg gagggagagc ccnccagcaa gtgatgcgtg acggcggcca cagacctgat 300
cgatcgatga g 311

<210> 642
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 642

cgatcatcgt gcacggcgtg tctggctacc acatcgaccc ttaccagggc gacaaggcgt 60
 cggccctgct cgtggacttc ttcgacaagt gccaggcgga ccgagccact ggagcaagat 120
 ctcccagggc gggctccagc gtatcgagga gaagtacacc tggaaagctgt actcggagag 180
 gctgatgacc ctcaccggcg tgtacgggtt ctggaagtac gtgtccaacc tggagaggcg 240
 cgagacccgg cggtagcttg agatgctgta cgcgctcaag taccgc 286

<210> 649
 <211> 331
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (282)
 <223>

<400> 649
 cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 60
 tgccagcgta tcgaggagaa gtacacctgg aagctgtact cggagaggct gatgaccctc 120
 accggcgtgt acgggttctg gaagtacgtg tccaacctgg agaggcgga gacccggcgg 180
 tacctggaga tgctgtacgc gctcaagtac cgcaccatgg cgagcaccgt gccgctggcc 240
 gtggagggag agccctccag caagtgatgc gtgacggcgg cnacagacct gatcgatcga 300
 tgagcgagat ggagcactcg gagtgtcgtg t 331

<210> 650
 <211> 288
 <212> nucleic acid
 <213> Zea mays

<400> 650
 gtttgacctc atcgagcagt acaacctgaa cgggcacatc cgctggatct ccgcccagat 60
 gaaccgcgtc cgcaacggcg agctgtaccg ctacatctgc gacaccaagg gcgccttcgt 120
 gcagcctgct ttctacgagg ctttcgggct gacgggtggtt gaggccatga cctgcggcct 180
 gccacgttc gccaccgct acggcgatcc ggccgagatc atcgtgcacg gcgtgtctgg 240
 ctaccacatc gacccttacc agggcgacaa ggcgtcggcc ctgctcgt 288

<210> 651
 <211> 304
 <212> nucleic acid
 <213> Zea mays

<400> 651

gggttctgga agtacgtgtc caacctggag aggcgcgaga cccggcggta cctggagatg 60
 ctgtacgcgc tcaagtaccg caccatggcg agcaccgtgc cgctggccgt ggagggagag 120
 ccctccagca agtgatgcgc gacggcggcc acagacctga tcgatcgatg agcgagaggg 180
 agcactcgga gtgtcgtgtc ttttcccttg ccatttcttt ctttttttcc cttcccggag 240
 gcgaaaaaaa gagtctgctt ttgctaggcg gcgggcgttc gttgctgctc attgcttcaa 300
 gagt 304

<210> 652
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 652

cggtctgagc tgagcacaca gacatcattc gcgttccctt cagaaatgag aatggcatcc 60
 tccgcaagtg gatctctcgt tttgatgtct ggccatacct ggagacatac actgaggatg 120
 tttccagtga aataatgaaa gaaatgcagg ccaagcctga ccttatcatt ggcaactaca 180
 gcgatggcaa cctagtcgcc actctgctcg cgcacaagtt gggagtcact cagtgtacca 240
 tcgctcatgc cttggagaaa accaaatacc ccaactcgga catat 285

<210> 653
 <211> 289
 <212> nucleic acid
 <213> Zea mays

<400> 653

gcacctgtcc accctacaag ctgatacccc atactctgaa tttcaccaca ggttccagga 60
 acttgggtctg gagaaggggtt ggggtgattg cgctaagcgt gcacaggaga ctatccacct 120
 cctcttggac ctcttgagg ccccgatcc gtccaccctg gagaagttcc ttggaacgat 180
 ccccatggtg ttcaatgtcg ttatcctctc ccctcatggt tacttcgctc aagctaattgt 240
 cttgggttac cctgacaccg gaagccaggt tgtctacatc ttggatcaa 289

<210> 654
 <211> 275
 <212> nucleic acid
 <213> Zea mays

 <400> 654

 cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttgacc tcatcgagca 60
 gtacaacctg aacgggcaca tccgctggat ctccgcccag atgaaccgcg tccgcaacgg 120
 cgagctgtac cgctacatct gcgacaccaa gggcgccctc gtgcagcctg ctttctacga 180
 ggctttcggg ctgacgggtg ttgaggccat gacctgcggc ctgcccacgt tcgccaccgc 240
 ctacggcggt ccggccgaga tcatcgtgca cggcg 275

<210> 655
 <211> 278
 <212> nucleic acid
 <213> Zea mays

 <400> 655

 gttccttga acgatcccca tgggtgtcaa tgtcgttatc ctctcccctc atggttactt 60
 cgctcaagct aatgtcttgg gttaccctga caccggaggc cagggtgtct acatcttga 120
 tcaagtgcgc gctatggaga acgaaatgct gctgaggatc aagcagtgtg gtcttgacat 180
 cacgccgaag atccttattg tcaccagggt gctccctgat gcaactggca ccacctgtgg 240
 ccagcgctt gagaagctcc ttggcaccga gcactgcc 278

<210> 656
 <211> 296
 <212> nucleic acid
 <213> Zea mays

 <400> 656

 gaaaactaag taccctaact ccgacctcta ctggaagaag tttgaggatc actaccactt 60
 ctcgtgccag ttcaccactg acttgattgc aatgaaccat gccgacttca tcatcaccag 120
 taccttccaa gagatcgccg gaaacaagga caccgtcggc cagtacgagt cacacatggc 180
 gttcacaatg cctggcctgt accgcgttgt ccacggcatt gatgtgttcg accccaagtt 240
 caacatcgtg tctcctggcg cggacctgtc catctacttc ccgtacaccg agtcgc 296

<210> 657
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 657

aagaggctga cctcccttca cccggagatt gaggagctcc tgtacagcca aaccgagaac 60
 acggagcaca agttcggttct gaacgacagg aacaagccaa tcatcttctc catggctcgt 120
 ctcgaccgtg tgaagaactt gactgggctg gtggagctgt acggccggaa caagcggctg 180
 caggagctgg tgaacctcgt ggctcgtctgc ggcgaccatg gcaacccttc caaggacaag 240
 gaggagcagg ccgagttcaa gaagatgttt gacctcat 278

<210> 658
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (246)
 <223>

<400> 658

ctggaggccc cagatccgtc caccctggag aagttccttg gaacgatccc catggtgtta 60
 caatgtcgtt atcctctccc ctcagtgtta cttegtctca gctaattgtct tgggttaccc 120
 tgacaccgga ggccagggtt tctacatctt ggatcaagtg cgcgctatgg agaacgaaat 180
 gctgctgagg atcaagcagt gtggtcttga catcacgccg aagatcctta ttgtcaccag 240
 gttgcnccct gatgcaagtg gcaccacctg tggccagcgc tttgagaggg tcttggcccc 300
 gaacat 306

<210> 659
 <211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 659

ctcggagagg ctgatgaccc tcaccggcgt gtacgggttc tggaagtacg tgtccaacct 60

caagatctcc cagggcgggc tccagcgat cgaggagaag tacacctgga agctctactc 120
 ggagaggctg atgacctca ccggcggtgta cgggttctgg aagtacgtgt ccaacctgga 180
 gaggcgcgag acccgggcgg acctggagat gctgtacgcg ctcaagtacc gcaccatggc 240
 gagcaccgtg ccgctggccg tggagggaga gcctcc 276

<210> 663
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 663

gaatttcacc acaggttcca ggaacttggc ctggagaagg gttgggggtga ttgcgctaag 60
 cgtgcacagg agactatcca cctcctcttg gacctcttg agggcccaga tccgtccacc 120
 ctggagaagt tccttggaa gatcccatg gtgttcaatg tcgttatcct ccccccat 180
 ggttacttcg ctcaagctaa tgtcttgggt taccctgaca ccggaggcca ggttgtctac 240
 atcttggatc aagtgcgcgc tatggagaac gaaa 274

<210> 664
 <211> 308
 <212> nucleic acid
 <213> Zea mays

<400> 664

gaccacgcgt cgacagcgtc cgggacctgg ggccggaaac aaggacaccg tcggccagta 60
 cgagtcacac atggcggttca caatgcctgg cctgtaccgc gttgtccacg gcattgatgt 120
 gttcgacccc aagttcaaca tcgtgtctcc tggcgcgagc ctgtccatct acttcccgt 180
 caccgagtcg cacaagaggc tgacctcct tcaccggag attgaggagc tcctgtacag 240
 ccaaaccgag aacacggagc acaagttcgt tctgaacgac aggaacaagc caatcatctt 300
 ctccatgg 308

<210> 665
 <211> 279
 <212> nucleic acid
 <213> Zea mays

<400> 665

tgcccatgcg	cttgagaaaa	ctaagtaccc	taactccgac	ctctactgga	agaagtttga	60
ggatcactac	cacttctcgt	gccagttcac	cacagacttg	attgcaatga	accatgccga	120
cttcattcatc	accagtacct	tccaagagat	cgccggaaac	aaggacaccg	tcggccagta	180
cgagtcacac	atggcgttca	caatgcctgg	cctgtaccgc	gtcgtccacg	gcattgatgt	240
gttcgacccc	aagttcaaca	tcgtgtctcc	tggcgcgga			279

<210>	666
<211>	277
<212>	nucleic acid
<213>	Zea mays

<400>	666						
atccccatgg	tgttcaatgt	cgttatcctc	tcccctcatg	gttacttcgc	tcaagctaata		60
gtcttggggt	accctgacac	cggaggccag	gttgtctaca	tcttggaatc	agtgcgcgct		120
atggagaacg	aaatgctgct	gaggatcaag	cagtgtgggt	ttgacatcac	gccgaagatc		180
cttattgtca	ccaggttgct	ccctgatgca	actggcacca	cctgtggcca	gcgccttgag		240
aaggtccttg	gcaccgagca	ctgccatata	cttcgcg				277

<210>	667
<211>	284
<212>	nucleic acid
<213>	Zea mays

<400>	667					
cctggggtct	accgtgtcgt	ccatggcatc	gatgttttcg	atcccaagtt	caacattgtc	60
tcacctggag	cagacatgag	tgtttactac	ccgtatacgg	aaaccgacaa	gagactcact	120
gccttccatc	ctgaaatcga	ggagctcatc	tacagcgacg	tcgagaactc	cgagcacaag	180
ttctgtctga	aggacaagaa	gaagccgac	atctttctcga	tggcgcgctct	cgaccgcgtg	240
aagaacatga	caggcctggt	cgagatgtac	ggcaagaacg	cgcg		284

<210>	668
<211>	286
<212>	nucleic acid
<213>	Zea mays

ctgaaatcga ggagctcatc tacagcgacg tcgagaactc cgagcacaag ttcgtgctga 60
 acgacaagaa gaagccgatc atcttctcga tggcgcgtct cgaccgcgtg aagaacatga 120
 caggcctggg cgagatgtac ggcaagaacg cgcgcctgac ggagctggcg aacctcgtga 180
 tcgttgccgg tgaccacggc aaggagtcca aggacaggga ggagcaggcg gagttcaaga 240
 agatgtacag cctcatcgac gagtacgagt tgaagggcca tatccg 286

<210> 669
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 669
 tctacttccc gtacaccgag tcgcacaaga ggctgacctc ccttcacccg gagattgagg 60
 agctcctgta cagccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 120
 agccaatcat cttctccatg gtcggtctcg accgtgtgaa gaacttgact gggctgggtg 180
 agctgtacgg ccggaacaag cggctgcagg agctgggtgaa cctcgtgggc gtctgcggcg 240
 accatggcaa cccttccaag gacaaggagg a 271

<210> 670
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 670
 cccgtacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 60
 gtacagccaa accgagaaca cggagcaca gttcgttctg aacgacagga acaagccaat 120
 catcttctcc atggctcgtc tcgaccgtgt gaagaacttg actgggctgg tggagctgta 180
 cggccggaac aagcggctgc aggagctggg gaacctcgtg gtcgtctgcg gcgaccatgg 240
 caacccttcc agggacaagg aggagcaggc cga 273

<210> 671
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 671

ctcatctaca ggcacgtcga gaactccgag cacaagttcg tgctgaagga caagaagaag 60
 ccgatcatct tctcgatggc gcgtctcgac cgcgtgaaga acatgacagg cctggtcgag 120
 atgtacggca agaacgcgcg cctgagggag ctggcgaacc tcgtgatcgt tgccggtgac 180
 cacggcaagg agtccaagga cagggaggag caggcggagt tcaagaagat gtacagcctc 240
 atcgacgagt acaagttgaa gggccatata 270

<210> 672
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 672

agattgagga gctcctgtac agccaaaccg agaacacgga gcacaagttc gttctgaacg 60
 acaggaacaa gccaatcatc ttctccatgg ctctgtctga ccgtgtgaag aacttgactg 120
 ggctgggtgga gctgtacggc cggaacaagc ggctgcagga gctgggtgaa ctctgtggtcg 180
 tctgcggcga ccatggcaac ccttccaagg acaaggagga gcaggccgag ttcaagaaga 240
 tgtttgacct catcgagcag tacaacctga a 271

<210> 673
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 673

gagctgtacg gccggaacaa gcggctgcag gagctgggtga acctcgtggt cgtctgcggc 60
 gaccatggca acccttccaa ggacaaggag gagcaggccg agttcaagaa gatgtttgac 120
 ctcacgagc agtacaacct gaacgggcac atccgctgga tctccgccca gatgaaccgc 180
 gtccgcaacg gcgagctgta ccgtacatc tgcgacacca agggcgctt cgtgcagcct 240
 gctttctacg aggttttcgg gctgacggtg gttg 274

<210> 674
 <211> 269
 <212> nucleic acid
 <213> Zea mays

<400> 674

atcgagcagt acaacctgaa cgggcacatc cgctggatct ccgcccagat gaaccgcgtc 60
 cgcaacggcg agctgtaccg ctacatctgc gacaccaagg gcgccttcgt gcagcctgct 120
 ttctacgagg ctttcgggct gacggtggtt gaggccatga cctgcggcct gccacgttc 180
 gccaccgctt acggcggtcc ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc 240
 gacccttacc agggcgacaa ggcgtcggcc ctgctcgtgg a 281

<210> 678
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 678
 ctggagcaga catgagtgtt tactaccctg atacggaaac cgacaagaga ctactgcct 60
 tccatcctga aatcgaggag ctcatcaaca gcgacgtcga gaactccgag cacaagttcg 120
 tgctgaagga caagaagaag ccgatcatct tctcgatggc gcgtctcgac cgcgtgaaga 180
 acatgacagg cctggtggag atgtacggca agaacgcgcg cctgagggag ctggcgaacc 240
 tcgtgatcgt cgccggtgac cacggcaaga gtccaaggac agggaggagc aggcgga 297

<210> 679
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<400> 679
 cgtgcacggc gtgtctggct accacatcga cccttaccag ggcgacaagg cgtcggccct 60
 gctcgtggac ttcttcgaca agtgccaggc ggacccgagc cactggagca agatctccca 120
 gggcgggctc cagcgtatcg aggagaagta cacctggaag ctctactcgg agaggctgat 180
 gaccctcacc ggcgtgtacg ggttctggaa gtacgtgtcc aacctggaga ggcgcgagac 240
 ccggcggtac ctggagatgc tgtacgcgtc caa 273

<210> 680
 <211> 279
 <212> nucleic acid
 <213> Zea mays

<400> 680

<400> 683
 agaagatggt tgacctcatc gagcagtaca acctgaacgg gcacatccgc tggatctccg 60
 cccagatgaa ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg 120
 ccttcgtgca gcctgctttc tacgaggctt tcgggctgac ggtggttgag gccatgacct 180
 gcggcctgcc cacgttcgcc accgcctacg gcgggtccggc cgagatcatc gtgcacggcg 240
 tgtctggcct acacatcgga ccttaccag gcgacaaagc gtcggcactg ctgctggact 300

<210> 684
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 684
 ggccgagttc aagaagatgt ttgacctcat cgagcagtac aacctgaacg ggcacatccg 60
 ctggatctcc gccagatga accgcgtccg caacggcgag ctgtaccgct acatctgcga 120
 caccaagggc gccttcgtgc agcctgcttt ctacgaggct ttcgggctga cgggtggtga 180
 ggccatgacc tgcggcctgc ccacgtttgc cacagcctac ggcggtccgg ccgagatcat 240
 cgtgcacggc gtgtctggct acca 264

<210> 685
 <211> 325
 <212> nucleic acid
 <213> Zea mays

<400> 685
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 cccttccaag gacaaggatg atcaggccga gttcaagaag atgtttgacc tcatcgagca 120
 gtacaacctg aacgggtaca tccgtggat ctccgccag atgaaccgcg tccgcaacgg 180
 cgagctgtac cgtacatct gcgacacat aggcgccttc gtgcagcctg ctttctacga 240
 ggctttcggg ctgacggtgg ttgaagctat gacctgcggc ctgcccagat tcgccaccgc 300
 ctagagggtc cggccagatc atcgt 325

<210> 686
 <211> 291

tgccgctggc cgtggnagga gagccctcag

270

<210> 689
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 689

ggctgacggg ggttgaggcc atgacctgcg gcctgcccac gtttgccaca gcctacggcg 60
gtccggccga gatcatcggt cacggcggtg ctggctacca catcgaccct taccagggcg 120
acaaggcggtc ggccctgctc gtggacttct tcgacaagtg ccaggcggac ccgagccact 180
ggagcaagat ctcccagggc gggctccagc gtatcgagga gaagtacacc tggaagctct 240
actcggagag gctgatgacc ctcaccggcg tgta 274

<210> 690
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 690

cggagcacia gttcgttctg aacgacagga acaagccaat catcttctcc atggctcgtc 60
tcgaccgtgt gaagaacttg actgggctgg tggagctgta cggccggaac aagcggctgc 120
aggagctggt gaacctcgtg gtcgtctgcg gcgaccatgg caacccttcc aaggacaagg 180
aggagcaggc cgagttcaag aagatgtttg acctcatcga gcagtacaac ctgaacgggc 240
acatccgctg gatctccgcc cagatga 267

<210> 691
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 691

gccaaaccga gaacacggag cacaagttcg ttctgaacga caggaacaag ccaatcatct 60
tctccatggc tcgtctcgac cgtgtgaaga acttgactgg gctggtggag ctgtacggcc 120
ggaacaagcg gctgcaggag ctggtgaacc tcgtggtcgt ctgcggcgac catggcaacc 180
cttccaagga caaggaggag caggccgagt tcaagaagat gtttgacctc atcgagcagt 240

268

<400> 692

<400> 693

<400> 694

249

cgggctgacg gtggttgagg ccatgacctg cggcctgccc

280

<210> 695
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 695

tgggcacatc cgctggatct ccgcccagat gaaccgcgtc cgcaacggcg agctgtaccg 60
ctacatctgc gacaccaagg ggcgcttcgt gcagcctgct ttctacgagg ctttcgggct 120
gacggtgggtt gaggccatga cctgcggcct gccacggtt gccacagcct acggcggtcc 180
ggccgagatc atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa 240
ggcgctgggc ctgctcgtgg acttcttcga 270

<210> 696
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 696

cggaccgtgg gctactggaa gaagtttgag gatcactacc acttctcgtg ccagttcacc 60
actgacttga ttgcaatgaa ccatgccgac ttcatcatca ccagtacctt ccaagagatc 120
gccggaaaca aggacaccgt cggccagtac gagtcacaca tggcgttcac aatgcctggc 180
ctgtaccgcy ttgtccacgg cattgatgtg ttcgaccca agttcaacat cgtgtctcct 240
ggcgcggaacc tgtccatcta cttcccgtac accgagtcgc ac 282

<210> 697
<211> 285
<212> nucleic acid
<213> Zea mays

<400> 697

ccttcgtgcy tccttctctg tcaaagtcca ttggcaatgg cgtgcagttc ctcaacaggc 60
acctgtcatc aaagctcttc catgacaagg agagcatgta ccccttgctc aacttccttc 120
gcgcccacaa ctacaagggg atgaccatga tgttgaacga cagaatccgc agtctcagtg 180
ctctgcaagg tgcgctgagg aaggctgagg agcacctgtc caccctacaa gctgataccc 240

catactctga atttcaccac aggttccagg aacttgggtct ggaga

285

<210> 698
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 698

gttcgcaagt ggatctcgcg atttgaagtc tggccgtacc tggagactta cactgatgac 60
gtggcgcatg agattgctgg agagcttcag gccaatcctg acctgatcat cggaaactac 120
agtgaacggaa accttgttgc gtgtttgctc gccacaaga tgggtgttac tcaactgtacc 180
attgcccattg cgcttgagaa aactaagtac cctaactccg acctctactg gaagaagttt 240
gaggatcact accacttctc gtgc 264

<210> 699
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 699

gagaaaacta agtaccctaa ctccgacctc tactggaaga agtttgagga tcaactaccac 60
ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt catcatcacc 120
agtaccttcc aagagatcgc cggaaacaag gacaccgtcg gccagtacga gtcacacatg 180
gcgttcacaa tgccctggcct gtaccgcgtt gtccacggca ttgatgtgtt cgaccccaag 240
ttcaacatcg tgtctcctgg cgcg 264

<210> 700
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 700

ggactttgag ccattcaatg cctccttccc ccgtccttct ctgtcaaagt ccattggcaa 60
tggcgtgcag ttccctcaaca ggcacctgtc atcaaagctc ttccatgaca aggagagcat 120
gtaccccttg ctcaacttcc ttgcgcgcca caactacaag gggatgacca tgatgttgaa 180
cgacagaatc cgcagtctca gtgctctgca aggtgcgctg aggaaggctg aggagcacct 240

gtccacccta caagctgata cccc

264

<210> 701
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 701

cccacgcgtc cgcggaaccgt gggatgggtgt tcaatgtcgt taccctctcc cctcatgggt 60
acttcgctca agctaattgtc ttgggttacc ctgacaccgg atgccagggt gtatacatct 120
tggatcaagt gcgcgctatg gagaacgaaa tgctgctgag gatcaagcag tgtgggtcttg 180
acatcacgcc gaagatcctt attgtcacca ggttgcctcc tgatgcaact ggcaccacct 240
gtggccagcg ccttgagaag gtccttggca ccgagcactg ccatatcc 288

<210> 702
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 702

agcgtatcga ggagaagtac acctggaagc tctactcgga gaggtgatg accctcaccg 60
gcgtgtacgg gttctggaag tacgtgtcca acctggagag gcgcgagacc cggcgggtacc 120
tgagatgct gtacgcgtc aagtaccgca ccatggcgag caccgtgccg ctggccgtgg 180
agggagagcc ctccagcaag tgatgcgcga cggcggccac agacctgatc gatcgatgag 240
cgagagggag cactcggagt gtcgtgtc 268

<210> 703
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 703

gagaaaacta agtaccctaa ctccgacctc tactggaaga agtttgagga tcactaccac 60
ttctcgtgcc agttcaccac tgacttgatt gcaatgaacc atgccgactt catcatcacc 120
agtaccttcc aagagatcgc cggaaacaag gacaccgtcg gccagtacga gtcacacatg 180
gcgttcacaa tgcttggcct gtaccgcgtt gtccacggca ttgatgtgtt cgacccaag 240

ttcaacatcg tgtctcctgg cgcgg

265

<210> 704
<211> 228
<212> nucleic acid
<213> Zea mays

<400> 704

gttcaacatc gtgtctcctg gcgcggacct gtccatctac ttcccgta caagagtcga 60

caagaggtcg acctcccttc acccggagat tgaggagctc ctgtacagcc aaaccgagaa 120

cacggagcac aagttcgttc tgaacgacag gaacaagcca atcatcttct ccatggctcg 180

tctcgaccgt gtgaagaact tgactgggct ggtggagttg tacggccg 228

<210> 705
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 705

cggacgcgtg ggcggacgcg tgggcaagag gctgacctcc cttcaccgag agattgagga 60

gctcctgtac agccaaaccg agaacacgga gcacaagttc gatctgaacg acagcgaaca 120

agccaatcat cttctccatg gctcgtctcg accgtgtgaa gaacttgact gggctgggtg 180

agctgtacgg ccggaacaag cggctgcagg agctgggtgaa cctcgtggtc gtctgcggcg 240

accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttg 297

<210> 706
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 706

attgaccctt accacagcga caaggccgcg gatatcctgg tcaacttctt tgacaaatgc 60

aaggcagatc cgagctactg ggacaagatc tcacagggcg gcctgcagag aatctatgag 120

aagtacacct ggaagctcta ctccgagagg ctgatgacct tgaccggcgt gtacgggttc 180

tggaagtacg tgagcaacct ggagaggcgc gagaccgccc gctacatcga gatgttctac 240

gccctgaagt accgtagcct ggcaagccag ggtccgctgt ccttcg 286

<210> 707
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 707

gagaaggggtt ggggtgattg cgctaagcgt gcacaggaga ctatccacct cctcttggac 60
 ctcttgaggg cccagatcc gtccaccctg gagaagttcc ttgtacgac cccatggtgt 120
 tcaatgtcgt tatectctcc cctcatggtt acttcgctca agctaattgc ttgggttacc 180
 ctgacaccgg aggccagggt gtctacatct tggatcaagt gcgtgctatg gagaacgaaa 240
 tgctgctgag gatcaagcag tgtggtcttg ac 272

<210> 708
 <211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 708

acctgatcct gccaaacttg agaagttcct tggaactata ccaatgatgt tcaatgttgt 60
 tatectttct cctcatggtt acttcgctca gtccaatgtg cttggatacc ctgacactgg 120
 cggtcagggt gtgtacattc tggatcaagt ccgtgctttg gagaatgaga tgcttctgag 180
 gattaagcag caaggccttg atatcactcc gaagatcctc attgttacca ggctgttgcc 240
 tgatgctgct gggactacgt gcggtcatcg gctggagaag gtcattggta ctgagcaca 299

<210> 709
 <211> 329
 <212> nucleic acid
 <213> Zea mays

<400> 709

acgcaccgac cacgggtccgc gacctgggtc gctggctgaa cgggcacatc cgctggatct 60
 ccgcccagct gaaccgcgtc cgcaacgacg agctgtaccg ctacatctgc gacaccaagg 120
 gcgccttcgt gcagcctgct ttctacgagg ctttcgggct gacggtggtt gacgccatga 180
 cctgcgggct gccacggtt gccacagcct acggcggtcc ggccgagatc atcgtgcacg 240
 gcgtgtctgg ctaccacatc gacccttacc agggcgacaa ggcgtcggcc ctgctcgtgg 300

acttcttcga caagtgccag gctgacccg

329

<210> 710
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 710

tgagattgct ggagagcttc aggccaatcc tgacctgac atcggatact acagtgcg 60
ataccttggt gcgtgtttgc tcgcccacaa gatgggtgtt actcactgta ccattgcccc 120
tgcgcttgat aaaactaagt accctaactc cgacctctac tggaagaagt ttgatgatca 180
ctaccacttc tcgtgccagt tcaccactga cttgattgct atgaaccatg ccgacttcat 240
catcaccagt accttccaag agatcgccgg atacaaggac accgtcg 287

<210> 711
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 711

gggctctacc gtgtcgcca tggcatcgat gttttcgatc ccaagttcaa cattgtctcc 60
cctggagcag acatgagtgt ttactacccg tatacggaaa ccgacaagag actcactgcc 120
ttccatcctg aaatcgagga gctcatctac agcgacgtcg agaactccga gcacaagtcc 180
gtgctgaagg acaagaagaa gcccctcatc ttctcgatgg cgcgtctcga ccgctgaag 240
aacatgacag gcctggtcga gatgtacggc aagaacgcgc gcctgagggg 290

<210> 712
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 712

cccacgcgtc cgttccctcaa cagcacctc ccatcaaagc tcttccatga caaggagagc 60
atgtaccctt tgctcaactt ccttcgcgcc cacaactaca aggggaccac catgatgttg 120
aacgacagac tccgcagtct cagtgtcttg caaggtgcgc tgaggaaggc tgaggagcac 180
ctgtccaccc tacaagctga taccatac tctgaatttc accacaggtt ccaggaactt 240

gggtctggaga aggggttgggg tgattgcgct aagcgtgcac aggagactat 290

<210> 713
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 713

caacaacttt gttcttgagc tggactttga gccattcaat gcctccttcc cccgtccttc 60
tctgtcaaag tccattggca atggcgtgca gttcctcaac aggcacctgt catcaaagct 120
cttccatgac aaggagagca tgtaccctt gctcaacttc cttcgcgccc acaactacaa 180
ggggatgacc atgatgttga acgacagaat ccgcagtctc agtgctctgc aaggtgcgct 240
gaggaaggct gaagagcacc tgtccaccct acaa 274

<210> 714
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 714

ctgatttcat catcaccagc acattccaag aaatcgcggg aagcaaggac accgtggggc 60
agtaacgagtc ccacatcgcg ttactcttc ctgggctcta ccgtgtcgtc catggcatcg 120
atgttttoga tccaagttc aacattgtct cccctggagc agacatgagt gtttactacc 180
cgtatacggg aaccgacaag agactcactg ccttccatcc tgaaatcgag gagctcatca 240
acagcgacgt cgagaactcc gagcacaagt 270

<210> 715
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 715

gttctcaac aggcacctgt catcaaagct cttccatgac aaggagagca tgtaccctt 60
gctcaacttc cttcgcgccc acaactacaa ggggatgacc atgatgttga acgacagaat 120
ccgcagtctc agtgctctgc aaggtgcgct gaggaaggct gaggagcacc tgtccaccct 180
acaagctgat accccatact ctgaatttca ccacagggtc caggaaacttg gtctggagaa 240

gggttggggt gattgcgcta agcgtgc

267

<210> 716
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 716

cctaactcgg acctctactg gaagaagttt gaggatcact accatttctc gtgccagttc 60
accactgact tgattgcaat gaaccatgcc gacttcatca tcaccagtac cttccaagag 120
atcgccggaa acaaggacac cgtcggccag tacgagtcac acatggcggt cacaatgcct 180
ggcctgtacc gcgttggtcca cggcattgat gtgttcgacc ccaagttcaa catcgtgtct 240
cctggcgcggt acctgtccat ct 262

<210> 717
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 717

gaggatcact accatttctc gtgccagttc accactgact tgattgctat gaaccatgcc 60
gacttcatca tcaccagtac cttccaagag atcgccggat acaaggacac cgtcggccag 120
tacgagtcac acatggcggt cacaatgcct ggtctgtacc gcgttggtcca cggcattgat 180
gtgttcgacc ccaagttcaa catcgtgtct cctggcgcggt acctgtccat ctacttcccg 240
tacaccgagt cgcacaagat gctgacctcc cttcaccc 278

<210> 718
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 718

ggtgattgcy ctaagcgtgc acaggagact atccacctcc tcttggaact cctggaggcc 60
ccagatccgt ccacctgga gaagttcctt ggaacgatcc ccatggtgtt caatgtcggt 120
atcctctccc ctcatgggta cttcgctcaa gctaatgtct tgggttaccc tgacaccgga 180
ggccaggttg tctacatctt ggatcaagtgc cgcgctatgg agaacgaaat gctgctgagg 240

263

<400> 719

<400> 720

<400> 721

258

cctgatcgat cgatgagcga gagggagcac tcggagtgtc gtgtctttat ccttgccgat 300
tctttctt 308

<210> 722
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 722

tgggtcttgac atcacgccga agatccttat tgtcaccagg ttgctccctg atgcaactgg 60
caccacctgt ggccagcgcc ttgagaaggt ccttggcacc gagcactgcc atatccttcg 120
cgtgccattc agaacagaaa acggaatcgt tcgcaagtgg atctcgcgat ttgaagtctg 180
gccgtacctg gagacttaca ctgatgacgt ggcgcatgag attgctggag agcttcaggc 240
caatcctgac ctgatcatcg gaaa 264

<210> 723
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 723

ctgggattac attcgggtga atgtaagtga gctggctgtg gaggagctga gtgtttctga 60
gtacttggca ttcaagggaac agctggtgga tggacaatcc aacagcaact ttgtgcttga 120
gcttgatttt gagcccttca atgctcctt tcctcgctct tccatgtcga agtcaatcgg 180
aaatggagtg caattcctta accgacacct gtcgtccaag ttgttccggg acaaggagag 240
tttgtacccc ttgctgaat 259

<210> 724
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 724

cccacgcgtc cgctcatcg agcagtacaa cctgaacggg cacatccgct ggatctccgc 60
ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180

acaaatgcaa ggcagatccg agctactggg acaagatctc acagggcggc ctgcagagaa 180
 tttatgagaa gtacacctgg aagctctact ccgagaggct gatgaccctg accggcgtgt 240
 acgggttctg gaagtacgtg agcaac 266

<210> 731
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 731

gtcgtctgcg gcgaccatgg caacccttcc aaggacaagg aggagcaggc cgagttcaag 60
 aagatgtttg acctcatcga gcagtacaac ctgaacgggc acatccgctg gatctccgcc 120
 cagatgaacc gcgtccgcaa cggcgagctg taccgctaca tctgcgacac caagggcgcc 180
 ttcgtgcagc ctgctttcta cgaggctttc gggctgacgg tggttgaggc catgacctgc 240
 ggctgcccc cgtttgccac agcctacggc ggtcggggccg agatcatcgt gca 293

<210> 732
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 732

gcgcgcctga gggagctggc gaacctcgtg atcgtcgccg gtgaccacgg caaggagtcc 60
 aaggacaggg aggagcaggc ggagttcaag aagatgtaca gcctcatcga ctagtacaag 120
 ttgaagggcc atatccggtg gatctcggcg cagatgaacc gcgtccgcaa cggggagctg 180
 taccgctaca tttgcgatac caagggcgca ttcgtgcagc ctgcgttcta cgaagcgttc 240
 ggctgactg tgatcgagtc catga 265

<210> 733
 <211> 261
 <212> nucleic acid
 <213> Zea mays

<400> 733

ctgagagttc ctgagtacct gcagttcaag gaacagcttg tggaagaagg cccaacaac 60
 aactttgttc ttgagctgga ctttgagcca ttcaatgcct ccttcccccg tccttctctg 120

tcaaagtcca ttggcaatgg cgtgcagttc ctcaacaggc acctgtcatc aaagctcttc 180
catgacaagg agagcatgta ccccttgctc aacttccttc gcgcccacaa ctacaagggg 240
atgaccatga tgttgaacga c 261

<210> 734
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 734

aggacaccgt ggggcagtac gagtcccaca tcgcgttcac tcttcctggg ctctaccgtg 60
tcgtccatgg catcgatgtt ttcgatccca agttcaacat tgtctcccct ggagcagaca 120
tgagtgttta ctaccggtat acggaaacga caagagactc actgccttcc atcctgaaat 180
cgaggagctc atctacagcg acgtcgagaa ctccgagcac aagttcgtgc tgaaggacaa 240
gaagaagccg atcatcttct cgatggcgcg tc 272

<210> 735
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 735

atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggggacaa ggcgtcggcc 60
ctgctcgtgg acttcttcga caagtgccag gcggagcgag accactggag caagatctcc 120
cagggcgggc tccagcgtat cgaggagaag tacacctgga agctgtattc ggagaggctg 180
atgaccctca ccggcgtgta cgggttctgg aagtacgtgt ccaacctgga gaggcgcgag 240
acccggcggt acctggagat gctgtacgag 270

<210> 736
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 736

ccctgacacc ggaggccagg ttgtctacat cttggatcaa gtgcgcgctc atggagaacg 60
aaatgctgct gaggatcaag cagtgtggtc ttgacatcac gccgaagatc cttattgtca 120

ccaggttgct ccctgatgca actggcacca cctgtggcca gcgccttgag aaggtccttg 180
gcaccggcac tgccatatcc ttcgcgtgcc attcagaaca gaaaacggaa tcgttcgcaa 240
gtggatctcg cgatttgaag tctggccgta 270

<210> 737
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 737

agctcatcaa cagcgacgtc gagaactccg agcacaagtt cgtgctgaag gacaagaaga 60
agccgatcat cttctcgatg gcgcgtctcg accgcgtgaa gaacatgaca ggccctggtgg 120
agatgtacgg caagaacgcg cgcttgaggg agctggcgaa cctcgatgac gtcgccggtg 180
accacggcaa ggagtccaag gacagggagg agcaggcgga gttcaagaag atgtacagcc 240
tcatcgacga gtacaagttg aa 262

<210> 738
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 738

aaggagtcca aggacagggg ggagcaggcg gagttcaaga agatgtacag cctcatcgac 60
gagtacaagt tgaagggcca tatccggtgg atctcggcgc agatgaaccg cgtccgcaac 120
ggggagctgt accgtacat ttgcgatacg aagggcgcat tcgtgcagcc tgcgttctac 180
gaagcggttcg gcttgactgt gatcgagtcc atgacgtgcg gtctgccaac gatcgcgacc 240
tgccatggtg gccctgctga ga 262

<210> 739
<211> 262
<212> nucleic acid
<213> Zea mays

<400> 739

ctcgaccttc tggaggcccc tgatcctgcc aacttgaga agttccttgg aactatacca 60
atgatgttta acgttggtat cctgtctcct catggctact tcgcccagtc caatgtgctt 120

ggataccctg acactggcgg tcaggttggtg tacattctgg atcaggtccg tgctttggag 180
aatgagatgc ttctgaggat taagcagcaa ggccttgata tcaactccgaa gatcctcatt 240
gttaccaggc tgttgccctga tg 262

<210> 740
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 740

gaaaacaaaa taccccaact cggacatcta cttggacaag ttcgacagcc agtaccactt 60
ctcttgccag ttcacagctg accttattgc catgaaccac actgatttca tcatcaccag 120
cacattccaa gaaatcgagg gaagcaagga caccgtgggg cagtacgagt cccacatcgc 180
gttcactctt cctgggctct accgtgtcgt ccatggcatc gatgttttcg atcccaagtt 240
caacattgtc tcccctggag caga 264

<210> 741
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 741

cccacgcgtc cgcccacgag tccgcccacg cgtccgatct tctcgatggc gcgctctcgac 60
cgcgtgaaga acatgacagg cctgggtggag atgtacggca agaacgcgag cctgaaggag 120
ctggcgaacc tcgtgatcgt cgccggtgac cacggcaagg agtccaagga cagggaggag 180
caggcggagt tcaagaagat gtacagcctc atcgacgagt acaagttgaa gggccatc 240
cggtggtatc cggcgcagat gaaccgcgtc cgcaacgggg agctgtaccg ctacatttgc 300

<210> 742
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 742

tgcaattcct taaccgacac ctgtcgtcca agttgttcca ggacaaggag agtttgtacc 60
ccttgctgaa cttcctcaag gtcataact acaagggcac gacgatgatg ttgaatgaca 120

gaatccaaag ccttcgtggt ctccaatcat ccctgagaaa ggcagaggag tatctactga 180
 gtgttcctca agacactccc tactcggagt tcaaccatag gttccaagag cttggcttgg 240
 agaagggttg gggtgacact gcgaacgtgt actcgaca 278

<210> 743
 <211> 315
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (286)
 <223>

<400> 743

acctggagag gcgcgagacc cggcgggtacc tggagatgct gtacgcgctc aagtaccgca 60
 ccatggcgag acaccgtgcc gctggccgtg gacggagagc cctccagcaa gtgatgcgcg 120
 acggcggcca cagacctgat cgatcgatga gcgagaggga gcactcggag tgcctgtctt 180
 tttcccttgc cattttctttc tttttttccc ttcccggagg cgaaaaaaag agtctgcttt 240
 tgctaggcgg cgggcgttcg ttgctgctct ttgcttcaag agttanattt acctaccttg 300
 tcaaggcttt gttcc 315

<210> 744
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 744

atttcaccac aggttccagg aacttgggtct ggagaagggt tggggtgatt gcgctaagcg 60
 tgcacaggag actatccacc tcctcttggga cctcctggag gccccagatc cgtccaccct 120
 ggagaagttc cttggaacga ttcccatggt tttcaatgtc gttatccgct cccctcatgg 180
 ttacgtcgct caagctaatag tcttgggtta ccctggcacc ggaggccagg ttgtctacat 240
 cttggatcaa gtggcgcgct atggagaacg aaatg 275

<210> 745
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 748
 gtcgagaact cccgagcacia gttcgtgctg aaggacaaga agaagccgat catcttctcg 60
 atggcgcgctc tcgaccgcgt gaagaacatg acaggcctgg tcgagatgta cggcaagaac 120
 gcgcgcctga gggagctggc gaacctcgtg atcgttgccg gtgaccacgg caaggagtcc 180
 aaggacaggg aggagcaggc ggagttcaag aagatgtaca gcctcatcga cgagtacaag 240
 ttgaagggcc atatccggtg gat 263

<210> 749
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 749
 ggacggggta tctggcctgc acattgaccc ttaccacagc gacaaggccg cggatatcct 60
 ggtcaacttc tttgacaaat gcaaggcaga tccgagctac tgggacaaga tctcacaggg 120
 cggcctgcag agaatttatg agaagtacac ctggaagctc tactccgaga ggctgatgac 180
 cctgaccggc gtgtacgggt tctggaagta cgtgagcaac ctggagaggc gcgagacccg 240
 ccgtacatc gagatgt 257

<210> 750
 <211> 261
 <212> nucleic acid
 <213> Zea mays

<400> 750
 ccttaccagg gcgacaaggc gtcggccctg ctcgtggact tcttcgacaa gtgccaggcg 60
 gacccgagcc actggagcaa gatctcccag ggcgggctcc agcgtatcga ggagaagtac 120
 acctggaagc tctactcgga gaggtgatg accctcaccg gcgtgtacgg gttctggaag 180
 tacgtgtcca acctggagag gcgcgagacc cggcggtacc tggagatgct gtacgcgctc 240
 aagtaccgca ccatggcgaa c 261

<210> 751
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 751
 ccggtgacca cggcaaggag tccaaggaca gggaggagca ggcggagttc aagaagatgt 60
 acagcctcat cgacgagtac aagttgaagg gccatatccg gtggatctcg gcgcagatga 120
 accgcgtccg caacggggag ctgtaccgct acatttacga taccaagggc gcattcgtgc 180
 agcctgcgtt ctacgaagcg ttcggcctga ctgtgatcga gtccatgacg tgcgggtctgc 240
 caacgatcgc gacctg 256

<210> 752
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 752
 gaacgaaatg ctgctgagga tcaagcagtg tggctcttgac atcacgccga agatccttat 60
 tgtcaccagg ttgctccctg atgcaactgg caccacctgt ggccagcgcc ttgagaaggt 120
 ccttggcacc gagcactgcc atatccttcg cgtgccattc agaacagaaa acggaatcgt 180
 tcgcaagtgg atctcgcgat ttgaagtctg gccgtacctg gagacttaca ctgatgacgt 240
 ggcgcgatgag attgctggag agcttcaggc caat 274

<210> 753
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 753
 cggacggtgg gtcacgcgaa actacagtga cggaaacctt gttgcgtggt tgcctgcca 60
 caagatgggt gttactcact gtaccattgc ccatgcgctt gagaacacta agtaccctaa 120
 ctccgacctc tactggaaga agtttgagga tcaactaccac ttctcgtgcc agttcaccac 180
 tgacttgatt gcaatgaacc atgccgactt catcatcacc agtaccttcc aagagatcgc 240
 cggaaacaag gacaccgtcg gccagtacga gtca 274

<210> 754
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 754
 ctggagacat acactgagga tgtttccagt gaaataatga aagaaatgca ggccaagcct 60
 gaccttatca ttggcaacta cagcgatggc aagctagtcg ccactctgct cgcacacaag 120
 ttgggagtc a ctcagtgtac catcgctcat gccttggaga aaaccaata ccccaactcg 180
 gacatctact tggacaagtt cgacagccag taccacttct cttgccagtt cacagctgac 240
 cttattgcca tgaaccacac tga 263

<210> 755
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 755
 gctcctgtac agccaaaccg agaacacgga gcacaagttc gatctgaacg acaggagcaa 60
 gccaatcatc ttctccatgg ctctgtctga ccgtgtgaag aacttgactg ggctgggtgga 120
 gctgtacggc cggaacaagc ggctgcagga gctgggtgtac ctctgtggtcg tctgcggcga 180
 ccatggcaac ccttccgagg acaaggatga tcaggccgag ttcattgaaga tgtttgacct 240
 cgctgagcag tacaacctga acgggcacat ccgc 274

<210> 756
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 756
 tcgagatgta cggcaagaac gcgcgcctga gggagctggc gaacctcgtg atcgttgccg 60
 gtgaccacgg caaggagtcc aaggacaggg aggagcaggc ggagttcaag aagatgtaca 120
 gcctcatcga cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc 180
 gcgtccgcaa cggggagctg taccgctaca ttgctgatac gaagggcgca ttcgtgcagc 240
 ctgcgtttcta cgaagc 256

<210> 757
 <211> 261
 <212> nucleic acid
 <213> Zea mays

<400> 757
catctacagc gacgtcgaga actccgagca caagttcgtg ctgaaggaca agaagaagcc 60
gatcatcttc tcgatggcgc gtctcgaccg cgtgaagaac atgacaggcc tggtcgagat 120
gtacggcaag aacgcgcgcc tgagggagct ggcgaaacctc gtgatcgttg ccggtgacca 180
cggcaaggag tccaaggaca gggaggagca ggcggagttc aagaagatgt acagcctcat 240
cgacgagtac aagttgaagg g 261

<210> 758
<211> 252
<212> nucleic acid
<213> Zea mays

<400> 758
cttccttcgc gccacaaact acaaggggat gaccatgatg ttgaacgaca gaatccgcag 60
tctcagtget ctgcaagggtg cgctgaggaa ggctgaggag cacctgtcca ccctacaagc 120
tgatacccca tactctgaat ttcaccacag gttccaggaa cttggtcttg agaagggttg 180
gggtgattgc gctaagcgtg cacaggagac tatccacctc ctcttggaacc tcctggaggc 240
cccagatccg tc 252

<210> 759
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 759
cccacgcgtc cgcccacgcg tccgccctgc tcgtggactt cttcgacaag tgccaggcgg 60
agcgagccac tggagcaaga tctcccaggg cgggctccag cgtatcgagg agaagtacac 120
ctggaagctg tactcggaga ggctgatgac cctcaccggc gtgtacgggt tctggaagta 180
cgtgtccaac ctggagaggc gcgagaccgc gcggtacctg gagatgctgt acgcgctcaa 240
gtaccgcacc atggcgagca ccgtgccgct ggccgtgga 279

<210> 760
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 760
 ggtggagctg tacggccgga acaagcggct gcaggagctg gtgaacctcg tggtcgtctg 60
 cggcgaccat ggcaaccctt ccaaggacaa ggaggagcag gccgagttca agaagatggt 120
 tgacctcatc gagcagtaca acctgaacgg gcacatccgc tggatctccg cccagatgaa 180
 ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg ctttcgtgca 240
 gcctgctttc tacg 254

<210> 761
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 761
 ggagacttac actgatgacg tggcgcatga gattgctgga gagcttcagg ccaatcctga 60
 cctgatcatc ggaaactaca gtgacggaaa ccttggttgcg tgtttgctcg cccacaagat 120
 ggggtgttact cactgtgcca gtgcgcatgc gcctgagaaa actaagtacc ctaactccga 180
 cctctactgg aagaagtttg aggatcacta ccacttctcg tgccagttca ccactgactt 240
 gattgcaatg aaccatgccg atttcatcat ca 272

<210> 762
 <211> 287
 <212> nucleic acid
 <213> Zea mays

<400> 762
 atcgtgcacg gcgtgtctgg ctaccacatc gacccttacc agggcgacaa ggcgtcggcc 60
 ctgctcgtgg atttcttcga caagtgccag gcggaccgag ccaactggagc aagatctccc 120
 agggcggggt ccagcgtatc gaggagaagt acacctggaa gctgtactcg gagaggctga 180
 tgacctcac cggcgtgtac gggttctgga agtacgtgtc caacctggag aggcgcgaga 240
 cccggcggtta cctggagatg ctgtacgcgc tcaagtaccg caccatg 287

<210> 763
 <211> 307
 <212> nucleic acid
 <213> Zea mays

```

<220>
<221>      unsure
<222>      (284)
<223>

<400>      763

cggacgcgtg gagcgtatcg aggagaagta cacctggaag ctgtactcgg agaggctgat   60
gacctcaac  ggcggtgtacg gggtcttgaa gtacgtgtcc aacctggaga ggcgcgagac  120
ccggcggtac ctggagatgc tgtacgcgct caagtaccgc accatggcga gcaccgtgcc  180
gctggccgtg gagggagagc ctccagcaag tgatgcgtga cggcggccac agacctgatc  240
gatcgatgag cgagagggag cactcggagt gtcgtgtctt ttcncttgcc atttctttct  300
ttctttct                                     307

<210>      764
<211>      255
<212>      nucleic acid
<213>      Zea mays

<400>      764

gacaccgtgg ggcagtaaga gtcccacatc gcgttcactc ttcttgggct ctaccgtgtc   60
gtccatggca tcgatgtttt cgatcccaag ttcaacattg tctcccctgg agcagacatg  120
agtgtttact acccgtatac ggaaaccgac aagagactca ctgccttcca tcctgaaatc  180
gaggagctca tctacagcga cgtcgagaac tccgagcaca agttcgtgct gaaggacaag  240
aagaagccga tcatc                                     255

<210>      765
<211>      250
<212>      nucleic acid
<213>      Zea mays

<400>      765

gtggagctgt acggccggaa caagcggctg caggagctgg tgaacctcgt ggtcgtctgc   60
ggcgaccatg gcaacccttc caaggacaag gaggagcagg ccgagttcaa gaagatgttt  120
gacctcatcg agcagtacaa cctgaacggg cacatccgct ggatctccgc ccagatgaaa  180
cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag  240

```

cctgctttct

250

<210> 766
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 766

gcgggtctgcc aacgatcgcg acctgccatg gtggccctgc tgagatcatc gtggacgggg 60
tatctggcct gcacattgac cttaccaca gcgacaaggc cgcggatata ctggtcaact 120
tctttgacaa atgcaaggca gatccgagct actgggacaa gatctcacag ggcggcctgc 180
agagaattta tgagaagtac acctggaagc tctactccga gaggctgatg accctgaccg 240
gcgtgtacgg g 251

<210> 767
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 767

gcgggaagca aggacaccgt ggggcagtac gagtcccaca tcgcgttcac tcttcctggg 60
ctctaccgtg tcgtccatgg catcgatgtt ttcgatccca agttcaacat tgttccccct 120
ggagcagaca tgagtgttta ctaccctgat acggaaaccg acaagagact cactgccttc 180
catcctgaaa tcgaggagct catctacagc gacgtcgaga actccgagca caagtctgtg 240
ctgaaggaca agaag 255

<210> 768
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 768

cttctttgac aaatgcaagg cagatccgag ctactgggac aagatctcac agggcggcct 60
gcagagaatc tatgagaagt acacctggaa gctctactcc gagaggctga tgaccctgac 120
cggcgtgtac gggttctgga agtacgtgag caacctggag aggcgcgaga cccgccgcta 180
catcgagatg ttctacgccc tgaagtaccg tagcctggca agccaggttc cgctgtcctt 240

cgattagtagt ggggaaagaa gaagaagaag aagcccaggc cggagaacca tcgcctg 297

<210> 769
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 769

cccacgcgtc cggatgcttc tgaggattaa gcagcaaggc cttgatatca ctccgaagat 60
 cctcattggt accaggctgt tgctgatgc tgctgggact acgtgcggtc agcggctgga 120
 gaaggtcatt ggtactgagc acacagacat cattcgcgtt cccttcagaa atgagaatgg 180
 catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga catacactga 240
 ggatgtttcc agtgaaataa tgaaa 265

<210> 770
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 770

caactacaag gggatgacca tgatgttgaa cgacagaatc cgcagtctca gtgctctgca 60
 aggtgcgctg aggaaggctg aggagcacct gtccacccta caagctgata cccatactc 120
 tgaatttcac cacaggttcc aggaacttgg tctggagaag ggttgggggtg attgcgctaa 180
 gcgtgcacag gagactatcc acctcctctt ggacctcctg gagggcccag atccgtccac 240
 ccggagaagt tcttgga 257

<210> 771
 <211> 247
 <212> nucleic acid
 <213> Zea mays

<400> 771

atgtaagtga gctggctgtg gaggagctga gtgtttctga gtacttggca ttcaaggaac 60
 agctgggtgga tggacaatcc aacagcaact ttgtgcttga gcttgatttt gagcccttca 120
 atgcctcctt tctcgtcct tccatgtcga agtccatcgg aaatggagtg caattcctta 180
 accgacacct gtcgtccaag ttgttccagg acaaggagag tttgtacccc ttgctgaact 240

tcctcaa

247

<210> 772
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 772

cccacgcgtc cgccacgcg tccggacaag gagagcatgt accccttgct caacttcctt 60
cgcgcccaca actacaaggg gatgaccatg atgttgaacg acagaatccg cagtctcagt 120
gctctgcaag gtgcgctgag gaaggctgag gagcacctgt ccaccctaca agctgatacc 180
ccatactctg aatttcacca caggttccag gaacttggtc tggagaaggg ttgggggtgat 240
tgcgctaagc gtgcacagga gactatccac 270

<210> 773
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 773

cgcgcccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag 60
cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg cggcctgccc 120
acgtttgcca cagcctacgg cgggccggcc gagatcatcg tgcacggcgt gtctggctac 180
cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt cttcgacaag 240
tgccaggcgg acccgagcca ctggagca 268

<210> 774
<211> 246
<212> nucleic acid
<213> Zea mays

<400> 774

cctgcacatt gacccttacc acagcgacaa ggccgcggat atcctgggtca acttctttga 60
caaatgcaag gcagatccga gctactggga caagatctca cagggcggcc tgcagagaat 120
ttatgagaag tacacctgga agctctactc cgagaggctg atgacctga ccggcgtgta 180
cgggttctgg aagtacgtga gcacctgga gaggcgcgag acccgccgct acatcgagat 240

gttcta

<210> 775
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 775
 acacacgcgt ccgcggacgc gtgggcccatt actctgaatt tcaccacagg ttccaggaac 60
 ttggtctgga gaagggttgg ggtgatagcg ctaagcgagc acaggagact atccacctcc 120
 tcttggaact cctggaggcc ccagatccgt ccaccctgga gaagttcctt ggaacgatcc 180
 ccatgggtgtt caatgtcgtt atcctctccc ctcatgggta ctctgctcaa gctaattgtc 240
 tgggttaccc tgacaccgga ggccagggtg tctacat 277

<210> 776
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 776
 ggagaacgaa atgctgctga ggatcaagca gtgtgggtctt gacatcacgc cgaagatcct 60
 tattgtcacc aggttgctcc ctgatgcaac tggcaccacc tgtggccagc gccttgagaa 120
 ggctcttggc accgagcact gccatctcct tcgctgcca ttcagaacag aaaacggaat 180
 cgttcgcaag tggatctcgc gatttgaagt ctggccgtac ctggagactt aactgatga 240
 cgtggcgc 248

<210> 777
 <211> 251
 <212> nucleic acid
 <213> Zea mays

<400> 777
 ccggaacaaa ggacaccgtc ggccagtacg agtcacacat ggcgttcaca atgcctggcc 60
 tgtaccgcgt tgtccacggc attgatgtgt tcgaccccaa gttcaacatc gtgtctcctg 120
 gcgcggacct gtccatctac ttcccgtaca ccgagtcgca caagaggctg acctcccttc 180
 acccggagat tgaggagctc ctgtacagcc aaaccgagaa cacggagcac aagttcgttc 240

tgaacgacag g

251

<210> 778
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 778

ggcggcgggc gttcgttgc tctctttgct tcaagagtta aatttaccta ccttgtcaag 60
gtcttggtcc atcattgac cggtgtgcg ttttagtagt ctgatggact gttagtagtt 120
tgcgttgctg cggttgagag ggaacggtgg tgggtggtgg gtgtgtgcag tcgggtgtgg 180
tgctcccttt gtttcctgga tgggatgttg ctccttgaat aataatcgta gtggccttgg 240
agcccttttc ctgaaataag agcagcatcc tagtgcttca ctt 283

<210> 779
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 779

gtgacggaaa ccttggtgcg tgtttgcgcg cccacaagat ggggtgttact cactgtacca 60
ttgcccatgc gcttgagaaa actaagtacc ctaactccga cctctactgg aagaagtttg 120
aggatcacta ccacttctcg tgccagttca ccactgactt gattgcaatg aaccatgccg 180
acttcatcat caccagtacc ttccaagaga tcgccggaaa caaggacacc gtcggccagt 240
acgagtcaca catggcggtc acaatgcctg gcctgtaccg cgttgtcc 288

<210> 780
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 780

ccttcacccg gagattgagg agctcctgta cagccaaacc gagaacacgg agcacaagtt 60
cgttctgaac gacaggaaca agccaatcat cttctccatg gtcgtctcg accgtgtgaa 120
gaacttgact gggctggtgg agctgtacgg ccggaacaag cggctgcagg agctggtgaa 180
cctcgtggtc gtctgcggcg accatggcaa cccttccaag gacaaggagg agcaggccga 240

gttc 244

<210> 781
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 781

acggcaagga gtccaaggac agggaggagc aggcggagtt caagaagatg tacagcctca 60
tcgacgagta caagttgaag ggccatatcc ggtggatctc ggcgcagatg aaccgcgtcc 120
gcaacgggga gctgtaccgc tacatttgcg ataccaaggg cgcattcgtg cagcctgcgt 180
tctacgaagc gttcggcctg actgtgatcg agtccatgac gtgcggtctg ccaacgatcg 240
cgacctg 247

<210> 782
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 782

tgcgttctac gaagcgttcg gctgactgt gatcgagtcc atgacgtgcg gtctgccaac 60
gatcgcgacc tgccatgggtg gccctgctga gatcatcgtg gacgggggat ctggcctgca 120
cattgaccct taccacagcg acaaggccgc ggatatcctg gtcaacttct ttgacaaatg 180
caaggcagat ccgagctact gggacaagat ctcacagggc ggctgcaga gaatttatga 240
gaagtacacc tggaagctct a 261

<210> 783
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 783

ccgcgtccgc aacggcgagc tgtaccgcta catctgcgac accaagggcg ccttcgtgca 60
gcctgctttc tacgaggctt tcgggctgac ggtggttgag gccatgacct gcggcctgcc 120
cacgtttgcc acagcctacg gcgggtccgc cgagatcatc gtgcacggcg tgtctggcta 180
ccacatcgac ccttaccagg gcgacaaggc gtcggccctg ctcgtggact tcttcgacaa 240

gtgccaggcg gacccga

257

<210> 784
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 784

gacaagaaga agccgatcat cttctcgatg gcgcgtctcg accgcgtgaa gaacatgaca 60
ggcctggtgg agatgtacgg caagaacgcg cgcctgaggg agctggcgaa cctcgtgatc 120
gtcgccggtg accacggcaa ggagtccaag gacagggagg agcaggcgga gttcaagaag 180
atgtacagcc tcatcgacga gtacaagttg aagggccata tccggtggat ctgggcgcag 240
atgaaccgcg t 251

<210> 785
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 785

ggaagtacgt gagcaacctg gagaggcgcg agacccgccg ctacatcgag atgtttctacg 60
ccctgaagta ccgtagcctg gcaagccagg ttccgctgtc cttcgattag tacggggaaa 120
gaagaagaag aagaagccca ggccgctatt ttatcgctg catttcgatc tgtttcaccg 180
caattcgcat tgttagtcgt gtattggagt tatgtgtact tggtttccaa gaactttagt 240
tccttctcgt tttttttcct tgtttgagcg tttttgggca gcgctggcct 290

<210> 786
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 786

cggacgcgtg gcgcgacgcg tgggctgcca acttggagaa gttccttgga actataccaa 60
tgatgttcaa tgttgttata cttactcctc atggcagatt tcgctcagtc caatgtgctt 120
ggataccctg aactggcgg tcaggttggtg tacattctgg atcaagtccg tgctttggag 180
aatgagatgc ttctgaggat taagcagcaa ggccttgata tcaactccgaa gatcctcatt 240

gttaccaggc tgttgccctga tgctgctggg actacgtgcg gtcagcggct ggagaaggct 300
attgggtactg a 311

<210> 787
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 787

cttgatTTTT agcccttcaa tgccctcttt cctcgtcctt ccatgtcgaa gtccatcgga 60
aatggagtgc aattccttaa ccgacacctg tcgtccaagt tgttccagga caaggagagt 120
ttgtaccctt tgctgaactt cctcaaggct cataactaca agggcacgac gatgatgttg 180
aatgacagaa tccaaagcct tcgtgggtctc caatcatccc tgagaaaggc agaggagtat 240
ctactgagtg ttccctcaa 258

<210> 788
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 788

atgagtgttt actaccgta tacggaaacc gacaagagac tcaactgcctt ccatcctgaa 60
atcgaggagc tcatctacag cgacgtcgag aactccgagc acaagtctgt gctgaaggac 120
aagaagaagc cgatcatctt ctcgatggcg cgtctcgacc gcgtgaagaa catgacaggc 180
ctggctgaga tgtacggcaa gaacgcgcgc ctgagggagc tggcgaacct cgtgatcggt 240
gccg 244

<210> 789
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 789

ggcggacgcg tgggtgcggc gaccatggca acccttccaa ggacaaggag 60
gagcaggccg agttcaagaa gatgtatgac ctcatcgagc agtacaacct gaacgggcac 120
atccgctgga tctccgcca gatgaaccgc gtccgcaacg gcgagctgta ccgctacatc 180
tgcgacacca agggcgccct cgtgcagcct gctttctacg aggccttcgg gctgacgggtg 240

gttgaggcca tgacctgcgg cctgccacag

270

<210> 790
<211> 274
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (168)...(186)
<223> unsure at all n locations

<400> 790

ggtacctgga gatgctgtac gcgctcaagt accgcaccat ggcgagcacc gtgccgctgg 60
ccgtggaggg agagccctcc agcaagtgat gcgtgacggc ggccacagac ctgatcgatc 120
gatgagcgag agggagcact cggagtgtcg tgtcttttcc cttgccannn nnnnnnnnnn 180
nnnnntcct tcccggaggg gaaaaaaaaa gagtctgctt ttgctaggcg gcgggcggtc 240
gttgctgctc tttgcttcaa gagttaaatt tacc 274

<210> 791
<211> 256
<212> nucleic acid
<213> Zea mays

<400> 791

cccacgcgtc cggccaaacc gagaacacgg agcacaagtt cgttctgaac gacaggaaca 60
agccaatcat cttctccatg gctcgtctcg accgtgtgaa gaacttgact gggctgggtg 120
agctgtacgg ccggaacaag cggctgcagg agctggtgaa cctcgtggtc gtctgcggcg 180
accatggcaa cccttccaag gacaaggagg agcaggccga gttcaagaag atgtttgacc 240
tcatcgagca gtacaa 256

<210> 792
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 792

tgcggtacct ggagatgctg tacgcgtca agtaccgcac catggcgagc accgtgccgc 60

<213> Zea mays

<400> 798

ggcgagctgt accgctacat ctgcgacacc aaggccgcct tcgtgcagcc tgctttctac 60
gaggctttcg ggctgacggt gggtgaggcc atgacctgcg gcctgcccac gtttgccaca 120
gcctacggcg gtccggccga gatcatcgtg cacggcgtgt cggctaccac atcgaccctt 180
accagggcga caaggcgctg gccctgctcg tggacttctt cgacaagtgc caggcggacc 240
cgagccactg gagcaagatc tcccagggcg ggctccagcg tatcgaggag aagta 295

<210> 799

<211> 255

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (2), (56)

<223> unsure at all n locations

<400> 799

anagatgttt gacctcatcg agcagtacaa cctgaacggg cacatccgct ggatcnccgc 60
ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180
cggcctgccc acgttcgcca ccgcctacgg cgccggccg agatcatcgt gcacggcgtg 240
tctggtacc acatc 255

<210> 800

<211> 244

<212> nucleic acid

<213> Zea mays

<400> 800

cctgaacggg cacatccgct ggatctccgc ccagatgaac cgcgtccgca acggcgagct 60
gtaccgctac atctgcgaca ccaagggcgc cttcgtgcag cctgctttct acgaggcttt 120
cgggctgacg gtggttgagg ccatgacctg cggcctgccc acgtttgcca cagcctacgg 180
cggtcgggcc gagatcatcg tgcacggcgt gtctggctac cacatcgacc cttaccaggg 240
cgac 244

gagttatgtg tacttggttt ccaagaactt tggttccttc tcgttttttt tccttggttg 360
agcggttttg ggcagcgctg gcttggttcc tagtatggtg ggaattggct gcaccttt 418

<210> 1040
<211> 439
<212> nucleic acid
<213> Zea mays

<400> 1040
cccgatatcg gaaaccgaca agagactcac tgcttccat cctgaaatcg aggagctcat 60
ggacagcgac gtcgagaact ccgagcacia gttcgtgctg aaggacaaga agaagccgat 120
catcttctcg atggcgcgctc tcgaccgctg gaagaacatg acaggcctgg tggagatgta 180
cggaagaac gcgcgcctga gggagctggc gaacctcgtg atcgtcgccg gtgaccacgg 240
caaggagtcc aaggacaggg aggagcatgc tgagttcaag aagatgtaca gcctcatcga 300
cgagtacaag ttgaagggcc atatccggtg gatctcggcg cagatgaacc gggtcgcaa 360
acgggagctg taccgctaca tttgtgatac caagggcgca ttccggcagc ctgcgttcta 420
cgaagcgctc ggcttgact 439

<210> 1041
<211> 392
<212> nucleic acid
<213> Zea mays

<400> 1041
ctccgaagat cctcattgtt accaggctgt tgctgatgc tgctgggact acgtgcgggc 60
agcggtgga gaaggtcatt ggtactgagc acacagacat cattcgcgtt cccttcagaa 120
atgagaatgg catcctccgc aagtggatct ctcggtttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tactcagtg taccatcgct catgccttgg agaaaaccaa atacccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tc 392

<210> 1042
<211> 418
<212> nucleic acid

<213> Zea mays

<400> 1042

cgcgctctcga ccgcgtgaag aacatgacag gcctgggtgga gatgtacggc aagaacgcgc 60
gcctgagggga gctggcgaac ctctgtgatcg tcgccgggtga ccacggcaag gagtccaagg 120
acagggagga gcatgcggag ttcaagaaga tgtacagcct catcgacgag tacaagttga 180
agggccatat ccggtggatc tcggcgacaga tgaaccgcgt ccgcaacggg gagctgtacc 240
gctacatttg cgataccaag ggcgcattcg tgcagcctgc gttctacgaa gcgttcggcc 300
tgactgtgat cgagtccatg acgtgcggtc tgccaacgat cgcgacctgc catggtggcc 360
ctgctgagat catcgtggac ggggtatctg gcctgcacat tgacccttac cacagcga 418

<210> 1043

<211> 436

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (426)

<223>

<400> 1043

gccaggcgga cccgagccac tggagcaaga tctcccaggg cgggctccag cgtagcgagg 60
agaagtacac ctggaagctc tactcggaga ggctgatgac cctcaccggc gtgtacgggt 120
tctggaagta cgtgtccaac ctggagaggc gcgagacccg gcggtacctg gagatgctgt 180
acgcgtcaa gtaccgcacc atggcgagca ccgtgccgct ggccgtggag ggagagccct 240
ccagcaagtg atgcgcgacg gcggccacag acctgatcga tcgatgagcg agagggagca 300
ctcggagtgt cgtgtctttt cccttgccat ttctttcttt ttttcccttc ccggaggcga 360
aaaaaagagt ctgcttttgc taggcggcgg gcgttcgttg ctgctctttg cttcaagagt 420
taaanttacc tacctt 436

<210> 1044

<211> 376

<212> nucleic acid

<213> Zea mays

<400> 1044

gtttgtaccc cttgctgaac ttctcaagg ctcataacta caagggcacg acgatgatgt 60
tgaatgacag aatccaaagc cttcgtggtc tccaatcatc cctgagaaaag gcagaggagt 120
atctactgag tgttctcaa gacactccct actcggagtt caaccatagg ttccaagagc 180
ttggcttggga gaaggggttg ggtgacactg cgaagcgtgt actcgacaca ctccacttgc 240
ttctcgacct tctggaggcc cctgatcctg ccaacttggga gaagttcctt ggaactatac 300
caatgatgtt caacgttggt atcctgtctc ctcattggcta cttcgcccag tccaatgtgc 360
ttggataccc tgacac 376

<210> 1045
<211> 412
<212> nucleic acid
<213> Zea mays

<400> 1045

ctccgaagat cctcattggt accaggtgt tgctgatgc tgctgggact acgtgcgggg 60
atcggctgga gaaggtcatt ggtactgagc acacagacat cattcgcgtt cccttcagaa 120
atgagaatgg catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tcaactcagtg taccatcgct catgccttgg agaaaaccaa atacccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tctcttgcca gttcacagct ga 412

<210> 1046
<211> 424
<212> nucleic acid
<213> Zea mays

<400> 1046

ggcaactaca gcgatggctt cctagttctc actctgctcg cacacaagtt gggagtgact 60
cagtgtacca tcgctcatgc cttggagaaa accaaatacc ccaactcgga catctacttg 120
gacaagttcg acagccagta ccattctct tgccagttca cagctgacct tattgccatg 180
aaccacactg atttcatcat caccagcaca ttccaagaaa tcgcgggaag caaggacacc 240
gtggggcagt acgagtccca catcgcggtc actcttctcg ggctctaccg tgctgtccat 300

ggcatcgatg ttttcgatcc caagttcaac attgtctccc ctggagcaga catgagtgtt 360
 tactacccgt atacggaaac cgacaagaga ctactgcct ttcacacctga aatcgaggag 420
 ctca 424

<210> 1047
 <211> 433
 <212> nucleic acid
 <213> Zea mays

<400> 1047

gaagatgttt gacctcatcg agcagtacaa cctgaacggg cacatccgct ggatctgggc 60
 ccagatgaac cgcgtccgca acggcgagct gtaccgctac atctgcgaca ccaagggcgc 120
 cttcgtgcag cctgctttct acgaggcttt cgggctgacg gtggttgagg ccatgacctg 180
 cggcctgccc acgtttgccca cagcctacgg cggtcgggcc gagatcatcg tgcacggcgt 240
 gtctggctac cacatcgacc cttaccaggg cgacaaggcg tcggccctgc tcgtggactt 300
 cttcgacaag tgccaggcgg acccgagcca ctggagcaag atctcccagg gcgggctcca 360
 gcgtatcgag gagaagtaca cctgtaagct ctactcggag aggetgatga ccctaacggc 420
 gtgtacgggt tct 433

<210> 1048
 <211> 447
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (361)
 <223>

<400> 1048

ctgatectgc caacttggag aagttccttg gaactatacc aatgatgttc aatgttgtga 60
 tccgtttctcc tcatggctac ttcgctcagt ccaatgtgct tggataccct gacactggcg 120
 gtcaggttgt gtacattctg gatcaagtcc gtgctttgga gaatgagatg cttctgagga 180
 ttaagcagca aggccttgat atcaactccga agatcctcat tgttaccagg ctgttgacctg 240
 atgctgctgg gactacgtgc ggtcagcggc tggagaaggt cattggtact gagcacacag 300

acatcattcg cgttccgttc agaaatgaga atggcatcct ccgcaagtgg atctctcggt 360
 ntgatgtctg gccatacctg gagacataca ctgaggatgt ttccagtgaataaatgaaaag 420
 aaatgcaggc caagcctgac cttatca 447

<210> 1049
 <211> 383
 <212> nucleic acid
 <213> Zea mays

<400> 1049

acctcatcga gcagtacaac ctgaacgggc acatccgctg gatctccgcc cagatgaacc 60
 gcgtccgcaa cggcgagctg taccgctaca tctgcgacac caagggcgcc ttcgtgcagc 120
 ctgctttcta cgaggctttc gggctgacgg tggttgaggc catgacctgc ggctgcca 180
 cgtttgccac agcctacggc ggtccggccg agatcatcgt gcacggcgctg tctggctacc 240
 acatcgaccc ttaccagggc gacaaggcgt cggccctgct cgtggacttc ttcgacaagt 300
 gccaggcgga cccgagccac tggagcaaga tctcccaagg cgggcttcaa cgtatcgagg 360
 agaagtacac ctggaagctt tac 383

<210> 1050
 <211> 278
 <212> nucleic acid
 <213> Zea mays

<400> 1050

gtgtgggtag cctgcgttct acgaagcgtt cggcctgact gtgatcgagt ccatgacgtg 60
 cggctctgcca acgatcgcga cctgccatgg tggccctgct gagatcatcg tggacgggggt 120
 atctggcctg cacattgacc cttaccacag cgacaaggcc gcggatatcc tgggtcaactt 180
 ctttgacaaa tgcaaggcag atccgagcta ctgggacaag atctcacagg gcggcctgca 240
 gagaatctat gagaagtaca cctggaagct ctactccg 278

<210> 1051
 <211> 408
 <212> nucleic acid
 <213> Zea mays

<400> 1051

cggtcggcct gactgtgac gagtccatga cgtgcggtct gccaacgac gcgacctgcc 300
atggtggccc tgctgagac atcgtggacg gggatatctg cctgcacatt gacccttacc 360
acagcgacaa ggccgcggat atcctgggtca acttctttga caaatgcaag gcagatccga 420
gctactggga caagatctc 439

<210> 1054
<211> 416
<212> nucleic acid
<213> Zea mays

<400> 1054

cggacgcgtg gggttgcctg atgctgctg gactacgtgc ggtcagcggc tggagaaggt 60
cattggtact gagcacacag acatcattcg cgttcccttc agaaatgaga atggcatcct 120
ccgcaagtgg atctctcggt ttgatgtctg gccatacctg gagacataca ctgaggatgt 180
ttccagtga ataatgaaag aaatgcacgc caagcctgac cttatcattg gcaactacag 240
cgatggcaac ctagtcgcca ctctgctcgc gcacaagttg ggagtcactc agtgtaccat 300
cgctcatgcc ttggagaaaa ccaaataccc caactcggac atatacttg acaaattcga 360
cagccagtac cacttctctt gccagttcac agctgacctt attgccatga accaca 416

<210> 1055
<211> 375
<212> nucleic acid
<213> Zea mays

<400> 1055

atcgatgttt tcgatcccaa gttcaacatt gtctccctg gagcagacat gagtgtggac 60
taccgtata cggaaaccga caagagactc actgccttcc atcctgaaat cgaggagctc 120
atcaacagcg acgtcgagaa ctccgagcac aagttcgtgc tgaaggacaa gaagaagccg 180
atcatcttct cgatggcgcg tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg 240
tacggcaaga acgcgcgcct gagggagctg gcgaacctcg tgatcgtcgc cggtgaccac 300
ggcaaggagt ccaaggacag ggaggagcat gcggagttca agaagatgta cagcctcatc 360
gacgagtaca agttg 375

<210> 1056

<211> 387
 <212> nucleic acid
 <213> Zea mays

 <400> 1056

 atgaaccaca ccgatttcat catcaccagc acattccaag aaatcgcggg aagcaaggac 60
 accgtggggc agtacgagtc ccacatcgcg ttactcttc ctgggctcta ccgtgtcgtc 120
 catggcatcg atgttttoga tcccaagttc aacattgtct ctcttgagc agacatgagt 180
 gtttactacc cgtatacgga aaccgacaag agactcactg ctttccatcc tgaaatcgag 240
 gagctcatct acagcgacgt cgagaactcc gagcacaagt tcgtgctgaa ggacaagaag 300
 aagccgatca tcttctcgat ggcgcgtctc gaccgcgtga agaacatgac aggcctgggtg 360
 gagatgtacg gcaagaacgc gcgcctg 387

<210> 1057
 <211> 383
 <212> nucleic acid
 <213> Zea mays

 <400> 1057

 gagaatggca tcctccgcaa gtggatctct cgttttgatg tctggccata cctggagacg 60
 tacgtgagg atgtttccag tgaaataatg aaagaaatgc aggccaagcc tgaccttattc 120
 attggcaact acagcgatgg caacctagtc gccactctgc tcgcgcacaa gttgggagtc 180
 actcagtgtg ccatcgctca tgccttgag aaaaccaaat accccaactc ggacatctac 240
 ttggacaagt tcgacagcca gtaccacttc tcttgccagt tcacagctga cttattgcc 300
 atgaaccaca ccgatttcat catcaccagc acattccaag aaatcgcggg aagcaaggac 360
 accgtggggc agtacgaggt cca 383

<210> 1058
 <211> 360
 <212> nucleic acid
 <213> Zea mays

 <400> 1058

 cccacgcgtc cgctgtaccg ctacatctgc gaacaccaag ggcgccttcg tgcagcctgc 60
 tttctacgag gctttcgggc tgacgggtgtg tgaggccatg acctgcggcc tgcccacgtt 120

tgccacagcc tacggcggtc cggccgagat catcgtgcac ggcgtgtctg gctaccacat 180
cgacccttac cagggcgaca aggcgtcggc cctgctcgtg gactttcttcg acaagtgccca 240
ggcggacccg agccactgga gcaagatctc ccagggcggg ctccagcgta tcgaggagaa 300
gtacacctgg aagctctact cggagaggct gatgaccctc accggcgtgt accggttctg 360

<210> 1059
<211> 404
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (69)
<223>

<400> 1059
acgcccacgc gtccgcccac gcgtccgtcg aggagtacaa gttgaagggc catatccggg 60
ggatgtctnc tcagatgagc cgcgtccgca acggggagct gtaccgctac atttgcgata 120
cgaagggcgc attcgtgcag cctgcgttct acgaagcggt cggcctgact gtgatcgagt 180
ccatgacgtg cggctctgcca acgatcgcga cctgccatgg tggccctgct gagatcatcg 240
tggacggggg atctggcctg cacattgacc cttaccacag cgacaaggcc gcggatatcc 300
tgggtcaactt ctttgacaaa tgcaagggag atccgagcta ctgggacaag atctcacagg 360
gcggcctgca gagaatctat gagaagtaca cctggaagct ctac 404

<210> 1060
<211> 424
<212> nucleic acid
<213> Zea mays

<400> 1060
gcgacaaggc cgcggatatc ctgggtcaact tctttgacaa atgcaaggca gatccgagct 60
agtgggacaa gatctcacag ggcggcctgc agagaatcta tgagaagtac acctggaagc 120
tctactccga gaggtgatg accctgaccg gcgtgtacgg gttctggaag tacgtgagca 180
acctggagag gcgcgagacc cgccgctaca tcgagatggt ctacgccctg aagtaccgta 240
gcctggcaag ccaggttccg ctgtccttcg attagtacgg ggaaagaaga agaagaagaa 300
gcccaggccg gagaaccatc gcctgcattt cgatctgttt caccgcaatt cgcattgtta 360

gtcgtgtatt ggagttatgt gtacttggtt tccaagaact ttggttcctt ctcgtatatt 420
ttcc 424

<210> 1061
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 1061

gtcgcatctcg tgcagcctgc gttctacgaa gcgttcggcc tgactgtgat cgagtccatg 60
acgtgcgggtc tgccaacgat cgcgacctgc catggtggcc ctgctgagat catcgtggac 120
ggggtatctg gcctgcacat tgacccttac cacagctgac aaggccgctg atatcctggt 180
caacttcttt gacaaatgca aggcagatcc gagctactgc gacaagatct cacagggcgg 240
cctgcagaga atctatgaca agtgcacctg gaagctctac tccgagaggc tgatgaccct 300
gaccggcgtg tacgggttct ggaagtacgt gagcaac 337

<210> 1062
<211> 384
<212> nucleic acid
<213> Zea mays

<400> 1062

atcaacagcg acgtcgagaa ctctcagcac aagttcgtgc tgaaggacaa gaagaaggcg 60
atcatcttct cgatggcgcg tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg 120
tacggcaaga acgcgcgcct gagggagctg gcgaacctcg tgatcgtcgc cggagaccac 180
ggcaaggagt tcaaggacag ggaggagcag gcggagttca agaagatgta cagcctcatc 240
gacgagtaca agttgaaggc ccatatccgg tggatctcgg cgcagatgaa ccgcgtgcgc 300
aacggtgagc tgtaccgtta catttgcat accaaggcg cattcgtgca gcctgcgttc 360
tacgaaacgt tcggcctgac tgtg 384

<210> 1063
<211> 413
<212> nucleic acid
<213> Zea mays

<400> 1063

ggcaaccctt ccaaggacaa ggaggagcat gccgagttca agaagatggt tgacctcatg 60
gagcagtaca acctgaacgg gcacatccgc tggatctccg cccagatgaa ccgcgtccgc 120
aacggcgagc tgtaccgcta catctgcgac accaagggcg ccttcgtgca gcctgctttc 180
tacgaggctt tcgggctgac ggtgggtgag gccatgacct gcggcctgcc cacgtttgcc 240
acagcctacg gcgggtccggc cgagatcatc gtgcacggcg tgtctggcta ccacatcgac 300
ccttaccagg gcgacaaggc gtcggccctg ctcgtggact tcttcgacaa gtgccaggcg 360
gacccgagcc actggagcaa gatctcccat ggcgggctcc agcgtatcga gga 413

<210> 1064
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 1064

gcgggaagca aggacaccgt ggggcagttc gagtcccaca tcgcgttcac tcttgctggg 60
ctctaccgtg tcgtccatgg catcgatggt ttcgatccca agttcaacat tgtctcccct 120
ggagcagaca tgagtgttta ctaccggtat acggaaaccg acaagagact cactgccttc 180
catcctgaaa tcgaggagct catctacagc gacgtccaga actccgagca caagttcgtg 240
ctgaaggaca agaagaagcc gatcatcttc tcgatggcgc gtctcgaccg cgtgaagaac 300
atgaca 306

<210> 1065
<211> 379
<212> nucleic acid
<213> Zea mays

<400> 1065

ggacaccgtg gggcagtagc agttcctgat tgtgtttact cttcctgggc tctagcgcgt 60
ggtccatggc atcgatgttt tcgatcccaa gttcaacatt gtctcccctg gagcagacat 120
cactgtttac taccggtata cggaaaccga caagagactc actgccttgc atcctgaaat 180
cgaggagctc atctacagcg acttcgataa ctccgagcac aatttcatgc tgaaggacta 240
catgatgccg atcatcttct cgatggcgcg tctataccgc gtgaagaaca tgactggcct 300
gatcgagatg tacggcatga tcgcgcgcct gagggagctg tcgaacctcg tgatcgttgc 360

cggtgaccac tgcaaggag

379

<210> 1066
<211> 352
<212> nucleic acid
<213> Zea mays

<400> 1066

gcgagatga accgcgtccg caacggggag ctgtaccgct acatttgca tacgaagggc 60
gcattcgtgc agcctgcgtt ctacgaagcg ttcggcctga ctgtgatcga gtccatgacg 120
tgcggtctgc caacgatcgc gacctgccat ggtggccctg ctgagatcat cgtggacggg 180
gtatctggcc tgcacattga cccttaccac agcgacaagg ccgcggatat cctggtcaac 240
ttctttgaca aatgcaaggc agatccgagc tactgggaca agatctcaca gggcggcctg 300
cagagaatct atgagaagta cacctggaag ctctactccg agaggctgat ga 352

<210> 1067
<211> 326
<212> nucleic acid
<213> Zea mays

<400> 1067

gaaatcgagg agtcatcaa cagcgacgtc gagaactccg agcacaagtt cgtgctgaag 60
gacaagaaga agccgatcat cttctcgatg gcgcgtctcg accgcgtgaa gaacatgaca 120
ggcctggtgg agatgtacgg caagaacgcg cgctgagggg agctggcgaa cctcgtgatc 180
gtcgccggtg accacggcaa ggagtccaag gacagggagg agcaggccga gttcaagaag 240
atgtacaggc tcatcgacga gtacaagttg gagggccata tccggtggat ctaggcgcag 300
atgaaccggg ttccgcacgg ggagct 326

<210> 1068
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 1068

acttcccgtg caccgagtcg cacaagaggt tgacctccct tcaatcgag attgaggagc 60
gtcctgtaca gccaaaccga gaacacggag cacaagttcg ttctgaacga caggaacaag 120

<210>	1071
<211>	342
<212>	nucleic acid
<213>	Zea mays

<400> 1071

<210>	1072
<211>	480
<212>	nucleic acid
<213>	Zea mays

<400>	1072
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<210>	1073
<211>	420
<212>	nucleic acid
<213>	Zea mays

<400> 1073

<210>	1074
<211>	394
<212>	nucleic acid
<213>	Zea mays

actgcgacct	ctactggaag	aagtttgagt	tatcacttcc	acttctcgtg	ccagttcacc	60
ggtgacggtg	attgcaatga	accatgccga	cttcattcatc	accagtacct	tccaagagat	120
cgccggaaac	aaggacaccg	tgggccagta	cgagtcacac	atggcgttca	caatgcctgg	180
cctgtaccgc	gttgtccacg	gcattgatgt	gttcgacccc	aagttcaaca	tcgtgtctcc	240
tggcgcggac	ctgtccatct	actttccgta	caccgagtcg	cacaagaggc	tgaccttctt	300
tcacccggag	attgaagagc	ttctgtacag	ccaaaccgag	aacacggagc	acaagttccg	360
ttctgaacga	caggaacaag	ccaatcattt	tttc			394

<210>	1075
<211>	403
<212>	nucleic acid
<213>	Zea mays

cccgtaacacc gagtcgcaca agaggctgac ctcccttcac ccggagattg aggagctcct 60

gtacagccaa accgagaaca cggagcaciaa gttcgttctg aacgacagga acaagccaat 120
catctttctcc atggctcgtc tcgaccgtgt gaagaacttg actgggctgg tggagctgta 180
cggccggaac aagcggctgc aggagctggt gaacctcgtg gtcgtctgct gcgaccatgg 240
caacccttcc aaggacaagg tggagcaggc cgagttcaag aagatgtttg acctcatcga 300
gcattacaac ctgaacgggc acattcgttg gatcttcgcc catatgaact cgcgtccgta 360
acggcgagct gttccgttac atttgctaca ccaaggtctc tag 403

<210> 1076
<211> 353
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (59)
<223>

<400> 1076

ctgacgcatg ggcacgtttg ccggatcgta ctgcgggccg gccgagatca tcgtgcgcng 60
ggtgtctagc ggcggcatgg acccttacca gggctacaag gcgtcggccc tgctcgtgga 120
cttcttcgac aagtgccagg cggacccgag ccaactggagc aagatctccc atggcgggct 180
ccagcgtatc gaggagaagt acacctggaa gctctactcg gagaggctga tgaccctcac 240
cggcgtgtac ggggttctgga agtacgtgtc caacctggag aggcgcgaga cccgacggta 300
cctggagatg ctgtacgcgc tcaagtaccg caccatggcg agcaccgtgc cgc 353

<210> 1077
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 1077

acgaacgttc ggcttgactg tgatcgagtc catgacgtgc ggtctgcca c gatctgtac 60
cggccatggt ggccctgctg agatcatcgt ggacggggta tctggcctgc acattgaccc 120
ttaccacagc gacaaggccg cggatatcct ggtcaacttc tttgacaaat gcaagggaga 180
tccgagctac tgggacaaga tctcacatgg cggcctgcag agaattctatg agaagtacac 240

ctggaatctc tac 253

<210> 1078
 <211> 298
 <212> nucleic acid
 <213> Zea mays

<400> 1078

ctttttcctt tccggtggcg aattttttgt agtctgcttt tgctaggcgg cgggcgttcg 60
 ttgctgctct ttgcttcaag agttaaattt acctaccttg tcaaggctct gttccatcat 120
 tgatccgggt gtcgctttta gtagtctgat ggactgttag tagtttgctg tgcgtcgggt 180
 gagaggggaac ggtggtggtg gtggtgtgtg tgcagtcggg tgtggtgctc cttttgtttc 240
 ctggatggga tgttgctcct tgaataataa tcgtagtggc cttggagccc ttttcctg 298

<210> 1079
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 1079

ccttgttgctg tgtttgctcg ccacaaagat ggggtgttact cactgtacca ttgccaggc 60
 ggttgagaaa actaagtagc ctaactccga cctctactgg aagaagtttg aggatcacta 120
 ccaattctcg tgccagttca ccactgactt gattgcaatg aaccatgccg acttcatcat 180
 caccagtacc ttccaagaga tcgccggaac caaggacacc gtccgccaat acgagtcaca 240
 catggcgttc acaatg 256

<210> 1080
 <211> 151
 <212> nucleic acid
 <213> Zea mays

<400> 1080

gcctggctga gatgtacggc aagaactctc gcctgagggg gctggcgaac ctggtgagcg 60
 ttgccggcga ccacggcaag gagtccaagg acagggagga gcaggcggag ttcaagaaga 120
 tgtacagcct catcgacgag tccaagttga a 151

<210> 1081

<211>	208
<212>	nucleic acid
<213>	Zea mays

<400> 1081

<211> 318
 <212> nucleic acid
 <213> Zea mays

 <400> 1084

 gggatgttgc tccttgaata ataatcgtag tggccttggg gccctttttcc tgaaataaga 60
 gcagcatcct agtgcttcac tttgcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaaaaaaaa ggaatcaaata caaaaatatc aaaacttaaa aaaattaata 240
 agaaataaaa aaaatatact aatgattaac caaaataaaa acaaatatca atttattaaa 300
 aactcaaaca aggaaaaa 318

<210> 1085
 <211> 451
 <212> nucleic acid
 <213> Zea mays

 <400> 1085

 agcagacatg agtgtgtact acccgatatac ggaaaccgac tagagactca ctgccttcca 60
 tcctgaaatc gaggagctca tctacagcga cgtcgagaac tccgagcaca agttcgtgct 120
 gaaggacaag aagaagccga tcatcttctc gatggcgctg ctcgaccgcg tgaagaacat 180
 gacaggcctg gtcgagatgt acggcatgaa cgcgcgcctg agggagctgg cgaacctcgt 240
 gatcgttgcc ggtgaccact gcaaggagtc caaggacagg gaggagcagg cggagttcaa 300
 gaagatgtac agcctcatcg acgagtacaa gttgaagggc catatccggt ggatctcggc 360
 gcagatgaac cgcgtccgca acggggagct gtaccgctac atttgcgata cgaagggcgc 420
 attcgtgcag cctgcgttct acgaagcgtt c 451

<210> 1086
 <211> 351
 <212> nucleic acid
 <213> Zea mays

 <400> 1086

 gctagctctc tgttgaccat tgcgtattct gaaccatcga gccatggctg ccaagcgtac 60
 tggcctccac agtcttcgcg aacgccttgg tgccaccttc tcctcccatc ccaatgaact 120

gatagcactc ttttccaggt atgttcacca gggcaaggga atgcttcagc gccatcagct 180
gcttgcgagg tttgatgccc tgtttgatag tgacaaggag aagtatgcac cttttgaaga 240
cattcttcgt gctgctcacg aagcaattgt gctcccccca tgggttgac ttgctatcag 300
gccaaaggcct cgtgtctggg attacattcg ggtgaatgta agtgagcttg c 351

<210> 1087
<211> 220
<212> nucleic acid
<213> Zea mays

<400> 1087

gcacgaggcc aggcgacgag cgccggctcg tcgtcgccat cgacggcggc ctgttcgagc 60
actacgccga gttcaggaag cgcttgagg ccacgctggt ggagctgctc ggggaggagg 120
cgtctaggct ggtggaggtc aagctcacca aggacgggtc tggcctcgga gccgccctca 180
ttgcagctgc cactcgag tactgaacgc ccaacggccg 220

<210> 1088
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 1088

cggagatgcg cgccggactg cgcaggacgg cggcagcaag atcaagatga tcgtctcctt 60
cgtcgacaac ctccccacgg ggaacgaaga gggcgtcttc tacgccttgg accttggcgg 120
aacgaacttc cgcgtgctgc gcgtgcagct ggccgggaag gacaggcgtg tgtgcaagcg 180
agagtccaag gaggtgtcca tccctcctca cctcatgtca ggcaacgcat cggagctgtt 240
tggcttcacg gcctcggcgc tagctaagta cgtcgccgcg gcgggcgaaa gggacggcaa 300
gcagagagag ctc 313

<210> 1089
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 1089

gttcatctcc atgccgacct gactcggact cttgatttgc tcctcgccgg ggttcgggtcc 60

caaagacaaa ttgctaggtg acttttagcca acaaaggact gtagttgcta ttgacggtgg 60
cctatacgag cactacaaga agttcagtgc ctgcctagag gcgacgctca cagacctgct 120
cggcgaggag gttgcctcat cggttggtgt caagttggcc aacgacggct caggaattgg 180
agctgcactt cttgctgctt cgcactccca gtatgctgaa gctgcatagt tctaggagct 240
cgggggtcct agtgtaacct tttttt 266

<210> 1093
<211> 307
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (283)
<223>

<400> 1093

ccgcgatgca ccatgacggc acgcctgacc tgagagtcgt ggcggagaag ctggccgaca 60
acctcagggg cagggacacg tccttggaca cgaggaagat ggtggtcgag atctgcgaca 120
tcgtcaccgg gacgtctgca cggttgccg cggcggggat cgtcgggatc ctcaggaaga 180
tcggtcgagc ggcgccaggc gacgagcgcc ggtacgtcgt cgcgatcgac ggcggcctgt 240
tcgagcacta cgccgagttc agggaagcgc ctgtagccac gentagttag ctgctcgggg 300
gagagcg 307

<210> 1094
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 1094

cccacgcgtc cgcccacgcg tccggataaa tccttagact tcgaaagttt gaaccctggt 60
gagcagatat atgaaaagat gatttctgga atgtatcttg gagaaattgt ccggaggatc 120
ctgctgaaac tggctcatga tgcttcattg tttggggatg ttgttcctcc gaaactggaa 180
cagctattta tactgaggac gccagatatg tcagccatgc accatgacac ctcacatgat 240
ctcaaacacc tgggagctaa 260

<210> 1095
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1095

gaagataggc cgggacaaag taccaagcag tggcagtaaa atgccaagga ctgtaattgc 60
 cttggatggg gggctctatg agcattacaa gaagttcagc agctgcgtcg aagcaactct 120
 tacagacttg ctggggaag aggcctcttc ctccgtgggt gccaaagctgg ccaacgatgg 180
 ctctggcatt ggagctgctc tccttgacgc ctcaactcc cagtatggcg agagtgacta 240
 gtcttgaaaa ccggtgtgga tcgaacttcg agtgtag 277

<210> 1096
 <211> 206
 <212> nucleic acid
 <213> Zea mays

<400> 1096

gcagcatatg tggagcatgc aaatgcaatt cctaaatgga cgggggttact gcctaaatct 60
 ggaaacatgg taattaatac ggaatgggga agctttaaat ccggcaagct tcctctctca 120
 gaatacgaca aagccatgga ctttgaaagt ttgaaccctg gagagcagat atacgaaaaa 180
 atgatctctg gcatgtatct gggaga 206

<210> 1097
 <211> 343
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (79), (167), (228), (231), (233) ... (235), (277), (313), (321)
 <223> unsure at all n locations

<400> 1097

ggcattagtc aatgatacag tgggcacatt ggctgggtggg agatatatgg ataccgatgt 60
 agttgcagct gtaatatng gcaactggta aaatgcagca tatgtggagc atgcaaatgc 120
 aattcctaaa tggactgggt tactgcctaa atctggaaaag atgggtantta atacagagtg 180
 ggggagcttc aaatccaaca aacttcctct ttcagaatat gacaaagnca ncnnncttga 240

aagtttgaac ctggagagca gatattacga gaaatgnttc tggatatgtac tcggagagat 300
tgttcgaaga atntactgaa ntggccatga gctctctatt ggg 343

<210> 1098
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1098

gggttttttga ttgaagatgt gggtgggaaa gatgtggctc aatgcttaaa tgaagctctt 60
gctaggagtg gactaaatgt gcgagttact gcactgggtga atgacactgt ggggacgtta 120
gctctaggctc attatcacga tgaggataca gtggctgctg tgataatcgg tgctggcacc 180
aatgcttgct atatcgaacg cactgatgca attattaaat gtcagggctc tcttacaac 240
tctggtgcca tggttgt 257

<210> 1099
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 1099

gactagatgt acggtagtag ctcggaatcg gctgagcaaa acctgggcgc taagctgaag 60
gacattcttg gggttcctga tacttctctg gacgcaagat acatcactct tcatgtgtgc 120
gaccttgctg cagagagaag tgcacgcctg gctgctgctg gtatatatcg tattctgaag 180
aagctgggta aagacaaatt gctaggtgac tgatacaaac aaaggactgt agttgctatt 240
gacggtggcc tatacgagca ctacaagaag ttcagtgcct gcctag 286

<210> 1100
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 1100

gaaacatctg atctgaagat tgtggccgaa aattttgaac aaaacctaga gattacaggc 60
acatccttgg aggctcgtaa gctggctggt gaaatctgtg acattgtggc gacaagagca 120
gcccggtggt ctgctgcggg gcttgcaggg atcctcatga agatcgggag agatcacagc 180

gtcgaggacc aacggtcagt catcgccatc gacggaggac tgttcgagca ctacaccaaa 240
 ttccgcggt gctt 254

<210> 1101
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (61)
 <223>

<400> 1101

tctcccttga tgatgagacg caaaatcgca atgatcaggg gtttgaaaaa atgatattctg 60
 nggatttatac ttgggggaaat tgcaaggctg gtgctgcac gaatggctctc agaatacagat 120
 gtcttttggtg atgccgctga taatctatca accccttcac attgagcaca ccacttcttg 180
 ctgcaattcg caaggacgat tcaccagatc tgagcgaagt cagaaggata ttgcaagacc 240
 atctgaagat accggacact cctctgacaa ctcggaagct agtcgtcaaa gtctgcgaca 300
 tcg 303

<210> 1102
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 1102

gtttgttgac gatgatgaga agtgcgctaa catttcgaat ggcaagaagc gagatctagg 60
 gttcacgttt tcgttcccag tgaagcagcg ttctgtagct tccggtacgc ttgtcaagtg 120
 gacaaaggca ttttccatta atgatgctgt aggccaagat gtggtggctg aactgcaaac 180
 agccatggag aagcaaggtc tggacatgca tgtagctgca ttgattaatg atgctgttgg 240
 gacgctggcg ggagcaaggt act 263

<210> 1103
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 1103

ctttgttgac gatgatgaga agtgcgctaa catttcgaat ggcaagaaga cgagtctagg 60
gttcacgttt tcgttcccag tgaagcagcg ttctgtagct tccggtagcg ttgtcaagtg 120
gacaaaggca ttttccatta atgatgctgt aggcgaagat gtggtggctg aactgcaaac 180
agccatggag aagcaaggtc tggacatgca tgtagctgca ttgattaatg atgctgttgg 240
gacgctggcg ggagcaaggc actacgacaa 270

<210> 1104
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 1104

gcgtcgagga ccaacgggtca gtcacgcca tcgacggagg actgttcgag cactacacca 60
aattccgccg gtgcttggag accacactgg gtgagctgct aggagacgag gcgtccaagg 120
cgggtggccat caagcatgcc gatgacggct caggaatagg tgctgccctg attgcagctt 180
cacagtctca gtacaaaaac gacttagtgg ccgtaagca tgcagatgac gggtcaggag 240
tcaagtatgc agaagacaag cgtgcagatg acggttcag 279

<210> 1105
<211> 349
<212> nucleic acid
<213> Zea mays

<400> 1105

tggcgacaag agcagcccgg ctggctgctg cggggcttgc agggatcctc atgaagatcg 60
ggagagatca cagcgtcgag gaccaacggc cagtcacgc catcgacgga ggactgttcg 120
agcactacac caaattccgc cgggtgcttg agaccacact gggtgagctg ctaggagacg 180
aggcgtccaa ggcggtggcc atcaagcatg ccgatgacgg ctcaggaata ggtgctgccc 240
tgattgcagc ttcacagtct cagtacaaaa acgacttagt ggccgtcaag catgcaatga 300
cgggttcagga gtcaagtatg cagaagacaa gcgtgcagat gacggttca 349

<210> 1106
<211> 338
<212> nucleic acid
<213> Zea mays

<400> 1106

ctttcgtgtc atccgggtcc aacttggcgg aagggacaga cgtgtcgtga agccacagta 60

tgaagaggtc tccattccgc ctcatcttat ggttggaaact tctacggaac tatttgattt 120

cattgctgct gagttggaaa aatttgtgcg gactgaagga gaagatttcc acctaccaga 180

tagcaagcag agggaaactgg gtttcacctt ttctttccca gtgcaccaaa catctatatc 240

atcggggact ctaattaagt ggaccaaagg attttgcac aatggcacgg ttggagaaga 300

tgttgtggct gaattgagta gggccatgga aaggcagg 338

<210> 1107

<211> 263

<212> nucleic acid

<213> Zea mays

<400> 1107

agcagagggga actgggtttc accttttctt tcccagtgca ccaaacatct atatcatcgg 60

ggactctaata taagtggacc aaaggatttt gcatcaatgg cacggttgga gaagatgttg 120

tggtgaatt gagtagggcc atggaaaggc aggtcttga tatgaaagt gcagctctgg 180

ttaatgatac tgtaggcaca ttggctggtg ggagatatgc tgataatgat gttgttgctg 240

ctgtaatatt gggcactggc aca 263

<210> 1108

<211> 119

<212> nucleic acid

<213> Zea mays

<400> 1108

gatttccacc taccagatgg caagcagagg gaactgggtt tcaccttttc tttcccagtg 60

caccaaacat ctatatcatc ggggactcta attaagtgga ccaaaggctt ttgcatcaa 119

<210> 1109

<211> 277

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (236) . . . (237)

[illegible][illegible][illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^{n-1} \Gamma(n)}$

[illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{Z^n}$

[illegible][illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^{n-1} \Gamma(n)}$

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^{n-1} \Gamma(n)}$

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^{n-1} \Gamma(n)}$

[illegible][illegible][illegible][illegible][illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^{n-1} \Gamma(n)}$

[illegible][illegible]

<400> 1112

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ccgtaagggtc gagcttccca tccctgagga attgattaag ggtacaattg aggagttatt 120

caactttggtt gccgtgaccc taaaggagtt cgtagaagca gaagatggta aagacgaaca 180

aagggcactt ggtttcacat tttctttccc agtcagacaa acatcagtat cttcagggtc 240

cttaattagg tggaccaaag ggtttttgat tgaagatgtg gttgggaaag atgtggctca 300

atgcttaaat gaagctcttg ctaggagtg 330

<210> 1113

<211> 289

<212> nucleic acid

<213> Zea mays

<400> 1113

gaacgaagag ggcgtcttct acgccttgga ccttggcgga acgaacttcc gcgtgctgcg 60

cgtgcactcg ccgggaaaga caggcgtgtg gccaaagcag actccaagga ggtgtccatc 120

cctcctcacc tcatgtcagg caacgcgtcg gagctgtttg gcttcacgc ctcggcgcta 180

gctaagtacg tcgccgcggc gggcgaaagg gacggcaggc agagagagct cgggttcacc 240

ttctctttcc ccgtgcgcca gacgtcgatc gcgtcaggca cgctcatca 289

<210> 1114

<211> 295

<212> nucleic acid

<213> Zea mays

<400> 1114

cgagagtcca aggaggtgtc catccctcct cacctcatgt caggcaacgc atcggagctg 60

tttggtttca tcgcctccgc gctagccaag tacgtcgccg cggcgggcga aggggacggc 120

aggcagagag agctcgggtt caccttctct tttcccgtgc gccagacgtc gatcgctca 180

ggcacgctca tcaagtggac caaggcgttt tcggtcgacg acgctgttgg tgaggatgtc 240

gtcgccgagc tgcagacggc catggagaag caaggcgtcg acatgcgtgt ggcgg 295

<210> 1115

<211> 277

<212> nucleic acid
<213> Zea mays

<400> 1115

cggtctgagg gcaacgcata ggagctgttt ggcttcatcg cctcggcgct agcaagtacg 60
tcgccgcggc gggcgaaagg gacggcaggc agagagagct cgggttcacc ttctctttcc 120
ccgtgcgcca gacgtcgata gcgtcaggca cgctcatcaa gtggaccaag gcgttttcgg 180
tcgacgatgc tgttgggtgag gatgtcgtcg ccgagctgca gacggccatg gagaagcaag 240
gcgtcgacat gcgtgtggcg gcaactgatca acgatac 277

<210> 1116
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 1116

aggcgtgtgg ccaagcgaga ctccaaggag gtgtccatcc ctctcacct catgtcaggc 60
aacgcgtcgg agctgtttgg cttcatcgcc tcggcgctac caagtacgtc gccgcggcgg 120
gcgaacggga cggcaggcag agagagctcg ggttcacctt ctctttcccc gtgcgccaga 180
cgtcgatcgc gtcaggcacg ctcatcaagt ggaccaaggc gttttcggtc gacgacgctg 240
ttgggtgagga tgtcgtcgcc gagctgcaga cggcc 275

<210> 1117
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 1117

ttctcatctc atctccccat cactgaatga tcaagaatta gataaggaga gcttaaatacc 60
aggagaacag atttacgaga agttaacgtc aggaatgtat ttaggtgaaa ttgtaaggag 120
gggtgtcctt aaaatatcat tgcagtccgc catttttggg gatattgacc aactaagct 180
tcaaaccat ttctttctgc ggactccaca tatttcagca atgcaccatg acgaaacatc 240
tgatctgaag attgtggccg a 261

<210> 1118
<211> 267

<212> nucleic acid
<213> Zea mays

<400> 1118

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cccacgcgtc cgccattcc atgttgatga ccatgtctcc tgaatggggc agtcaccct 60
cccattttgg aatatgatca agaattagat aaggagagct taaatccagg agaacagatt 120
tacgagaagt taacgtcagg aatgtattta ggtgaaattg taaggagggt gtccttaaa 180
atatcattgc agtcgccat ttttggtgat attgaccaca ctaagcttca aaccatttc 240
cttctgcgga ctccacatat ttcagca 267
```

<210> 1119
<211> 296
<212> nucleic acid
<213> Zea mays

<400> 1119

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tgtcaagtgg acaaaggcat tttccattaa tgatgctgta ggcgaagatg tggtagctga 60
actgcaaaca gccatggaga agcaaggctt ggacatgcat gtagctgcat tgattaatga 120
tgctgttggg acgctggcgg gagcaaggta ctacgacaaa gatgttgctg ctggtgtaat 180
atttggcact ggcacaaacg cagcatatgt tgagaaggca aatgctattc caaaatggga 240
gggtgagctg cccattcag gagacatggt catcaacatg gaatggggta acttct 296
```

<210> 1120
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 1120

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caaagatgtt gtcgctggtg taatatattg cactggcaca aacgcagcat atgttgagaa 60
ggcaaagtct attccaaaat gggaggggtga gctgccccat tcaggagaca tggatcatca 120
catggaatgg ggtaacttct tctcatctca tctcccatc actgaatatg atcaagaatt 180
agataaggag agcttaaata caggagaaca gatttacgag aagttaacgt caggaatgta 240
tttaggtgaa attgtaagga ggggtgctct taaaatatcg atgcagtccg ccatttttgg 300
tgatatt 307
```

<210> 1121
 <211> 197
 <212> nucleic acid
 <213> Zea mays

 <400> 1121

 agatgttgtc gctggtgtaa tatttggcac tggcacaaac gcagcatatg ttgagaaggc 60
 aaatgctatt ccaaaatggg aggggtgagct gcccattca ggagacatgg tcatcaacat 120
 ggaatggggg aacttcttct catctcatct ccccatcact gaatatgatc aagaattaga 180
 taaggagagc ttaaatac 197

<210> 1122
 <211> 170
 <212> nucleic acid
 <213> Zea mays

 <400> 1122

 atttggagat gttgttccaa ctaagctgga gcagccattt atattgagga cgccagatat 60
 gtcagccatg catcatgact cttcgcatga cctcaaaact cttggatcta aactgaagga 120
 tatagttggg gtcgcagata cttccctgga agtaagatac attactcgtc 170

<210> 1123
 <211> 306
 <212> nucleic acid
 <213> Zea mays

 <400> 1123

 ggcacattgg ctggtgggag atatgctgat aatgatgttg ttgctgctgt aatattgggc 60
 actggcacia atgcagctta tgtggaacat gcaaagtga ttcctaaatg gaccgggctg 120
 ctacctagat cagggaacat ggtaatcaac atggagtggg gaaacttcag atcagataaa 180
 cttccaaggt cggagtatga taaatcctta gacttcgaaa gtttgaaccc tggtagcag 240
 atatatgaaa agatgatttc tggaatgtat cttggagaaa ttgtccggac gatcctgctg 300
 aaactg 306

<210> 1124
 <211> 308
 <212> nucleic acid
 <213> Zea mays

acatctgaag gtcagctttc ctgaccttca tgaagtcaaa catgtgtttt cctccaacct 420
gtgaagggtc tgggtatttt gc 442

<210> 1127
<211> 436
<212> nucleic acid
<213> Zea mays

<400> 1127

ctgaaaactc gaaggctggt tgtcaaagtg tgcgacatcg tcacccggag agctgcccgg 60
ctagccgccg ctggtattgt cgggatactg aaaaagctcg gccgtgatgg gagcggtggt 120
gcttcaagcg ggagaacggg agggcagatg aggcggacgg tggttgccat cgaggggtggg 180
ctgtacgagg gctacccggt gttcaggagg tacctagacg aagccctggt ggagatcttg 240
ggggaggagg tggcgcgagc ggtggcgctg agggtgacag tggatgggtc tggggccggc 300
gctgccctcc ttgccgcgt acattcgctg aatagacagc aaggttccat atagggagaa 360
gggaagatgg tgatacagcc ccctctgtgc aaatgtaaaa aggaacatta tttgatatct 420
atattcatat atatat 436

<210> 1128
<211> 443
<212> nucleic acid
<213> Zea mays

<400> 1128

caaacaacag tatgaggagg ttccattcc accacatttg atggtcggga cttccatggg 60
actatttgat ttcattgctg ctgcattggc taaatttgtc ggtactgaag gtgaagattt 120
ccaactccca gagggtagac agagagaact tggtttcaact ttttccttcc cggtgaacca 180
aacatcaata tcatcaggaa cactcatcaa gtggacaaag ggcttttcca tcaatggcac 240
ggttggtgaa gatgttgatt ctgagttgag cagggccatg gagaggcagg ggctagatat 300
gaaagttacg gcattagtca atgatacagt cggcacattg gctggtgagg gatatatgga 360
taccgatgta gttgcagctg taatattggg cactgggtaca aatgcagcat atgtggagca 420
tgcatatgca attcctaaat ggg 443

<210> 1129
 <211> 419
 <212> nucleic acid
 <213> Zea mays

 <220>
 <221> unsure
 <222> (377), (392), (403)
 <223> unsure at all n locations

 <400> 1129

ggcgaggatg acgagctcct ttctgaacta aaagataagt gggatgcaat ggagaacagg 60
 tcctctcttg ccttgatggt tgctggagca atcctcgctg tctggatata cttggttgta 120
 gtgagatctc tcgactctgt cccgttgctc ccaggcatat tggagctagt cgggctcagc 180
 tactctggat ggtttggtga ccgataacctg ctttttcagg aaaaccggaa agaattggcc 240
 ggtgttatcg atgatataaa gagaaggatt gttggcgatg atgaatagct gtttcctggt 300
 ttgtaattct atttatctcg ccctgtttgg ttctgaggaa ttgaaaaata atccaatggt 360
 gaagtgagaa agcactntct agttattggt tntaattcat gngtccaaa caggctcct 419

<210> 1130
 <211> 430
 <212> nucleic acid
 <213> Zea mays

 <400> 1130

cggaggaaca aacttttagag tgtaagagt tgaagttggt gctgggtctg tggtcacccg 60
 tcggaagggt gaacttccca tccctgagga attgaccaag ggtacaattg aggagctatt 120
 caactttggt gccatgactc taaaggaatt tgtagaaaca gaagatggga acgatgaaca 180
 acgagcgctt ggtttcacat tttctttccc agttagacaa acatcagtat cttcggggtc 240
 attgattagg tggaataaag ggtttttgat tgaagatgct gttgggaaag atgtggctca 300
 atgcttaaata gaagctcttg ctaggaatgg actaaatgtg cgagttactg cactggtgaa 360
 tgacaccgtg gggacattag ctctaggaca ttatcacgat gaggatacag tggctgctgt 420
 gatcattggt 430

<210> 1131
 <211> 356
 <212> nucleic acid

<213> Zea mays

<400> 1131

ggacctcaaa gcgaagtggg acgcccgttga ggacaagccc accgtcctct tgtacggcgg 60
 cggcgccgctc gtcgcccctct ggctgacgtc cgtggctcgtg ggcgccatca acgccgtgcc 120
 gctgctcccc aagatcctgg agctcgttgg gctcggctac accggctggg tcgtgtaccg 180
 ctaccttctc ttcaaggaaa gcaggaaaga gttggccgcc gacattgaga ctttgaagaa 240
 aaaaatagct ggaacagaat aaacgctcat ggaaagtttt agagcgtcct ttcttctttg 300
 gaaagagatc tattcgatcg gagaaccaat gcaactactt gagtactatt attgcc 356

<210> 1132

<211> 440

<212> nucleic acid

<213> Zea mays

<400> 1132

cgcgcgtccg cgtcccgccc tctccctcg gcgcagcgtc tgccagcttc gttccaagg 60
 ggcaccgagg ctctccctgc tccgtgcgaa ggccgcttcc gaggacacat cggcctccgg 120
 cgacgagttg atcgaggacc tcaaagcgaa gtgggacgcc gttgaggaca agcccaccgt 180
 cctcttgtag ggcgggcgcg ccgtcgtcgc cctatggctg acgtccgtgg tcgtgggcgc 240
 catcaacgcc gtgccgctgc tccccaat cctggagctc gttgggctcg gctacaccgg 300
 ctggttcgtg taccgtacc ttctctttaa ggaaagcagg aaagagttgg ccgccgacat 360
 tgagaccttg aagaaaaaaaa tagctggaac agaataaacg ctcatggaaa gtttttagagc 420
 gtcctttctt ctttggaag 440

<210> 1133

<211> 421

<212> nucleic acid

<213> Zea mays

<400> 1133

aatccgtggc gctcctcggc ggcgcgcgcc ttcccgcgc tccgcgtcc gccctcctcc 60
 ctggcgag cgtctgccag ctctcgttcc aagatgcacc gaggtctcc ctgctccgtg 120
 cgaaggcgc ttccgaggac acatcggcct ccggcgacga gttgatcgag gacctcaaag 180

cgaagtggga cgccgttgag gacaagccca ccgtcctctt gtacggcggc ggcgccgtcg 240
 tcgccctttg gctgacgtcc gtggctgtgg gcgccatcaa cgccgtgccg ctgctcccca 300
 agatcctgga gctcgttggg ctccggtaca ccggtgtggt cgtgtaccgc taccttctct 360
 tcaaggaaa caggaaagag ttggccgccg acattgagac cttgaagaaa aaaatagctg 420
 g 421

<210> 1134
 <211> 420
 <212> nucleic acid
 <213> Zea mays
 <400> 1134

ggttctgtag cttccggtac gcttggttaag tggacaaagg cattttccat taatgatgct 60
 gtaggcgaag atgtggtggc tgaactgcaa acagccatgg agaagcaagg tctggacatg 120
 catgtagctg cattgattaa tgatgctgtt gggacgctgg cgggagcaag gtactacgac 180
 aaagatgttg tcgctgggtg aatatttggc actggcacia acgcagcata tgttgagaag 240
 gcaaagtcta ttgcaaatg ggaggggtgag ctgccccatt caggagacat ggtcatcaac 300
 atggaatggg gtaacttctt ctcatctcat cttcccatca ctgaatatga tcaagaatta 360
 gataaggaga gcttaaattc aggagaacag atttacgaga agttaacgtc aggaatgtat 420

<210> 1135
 <211> 420
 <212> nucleic acid
 <213> Zea mays
 <400> 1135

agggccatgg aaaggcaggg tcttgatatg aaagttgcag ctctggttaa tgacactgta 60
 ggcacattgg ctggtgggag atatgctgat aatgatgttg ttgctgctgt aatattgggc 120
 actggcacia atgcagctta tgtggaacat gcaaattgca ttcctaaatg gaccgggctg 180
 ctacctagat cagggaacat ggtaatcaac atggagtggg gaaacttcag atcagataaa 240
 cttccaaggt cggagtatga taaatcctta gacttcgaaa gtttgaaccc tggtagcag 300
 atatatgaaa agatgatttc tggaatgtat cttggagaaa ttgtccggag gatcctgctg 360
 aaactggctc atgatgcttc attgtttggg gatgttggtc ctccgaaaact ggaacagcta 420

<210> 1136
 <211> 107
 <212> nucleic acid
 <213> Zea mays

<400> 1136

cggacactgg gcgagacgcg tgggtgaagt ttcggcgaga tgttgataga cttcgtgccc 60
 accgtggcgg ggggtctcgct agcgggaagt ccggccttac tcaaggc 107

<210> 1137
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1137

gcgcccacct cctctgctct ctctctctccc ccacctctgc gtccgtgcgt tgtgtttgtt 60
 taggcggcaa ccgcgatgcg caatggcggc cgggagagag ctggtggtga gtttcggcga 120
 gatgttgata gacttcgtgc ccaccgtggc ggggggtctcg ctggcggagg cgccgggctt 180
 cctcaaggcg cccggtggcg cggccgctaa cgtcgccatc gtggtctcgc 230

<210> 1138
 <211> 240
 <212> nucleic acid
 <213> Zea mays

<400> 1138

cgacgtcgtc ataactggcg cctctatgag tcggcggact gctgccgctg cggcgtccaa 60
 caacctggtg gtgtcgttcg gcgagatgct gatcgacttc gtccccgacg tggccgtgct 120
 gtcgtgggcc gagtcgggcg gcttcgtcaa ggcacccggc ggcgcgcccc ccaacgtcgc 180
 ctgcgccatc gccaaagctcg gcggatcctc cgccttcgta ggcaagttcg gcgacgacga 240

<210> 1139
 <211> 300
 <212> nucleic acid
 <213> Zea mays

<400> 1139

cggaccgtgg cgtcaacgtc gccaaaggac actccatctt ccacaacgag gagggagccg 60

gcggcgctcgt cttcgactcc ggcgcgcgca ccggctcgcc ttcgtcacc cgcgcgccga 120
 cggggagcgc gagttcatgt tctaccgcaa cccagcgcgt gacatgctcg tcaccgccga 180
 cgagctcaac gtcgagctca tcaagagggc tgcggtcttc cagtacggat cagtaagctt 240
 gattgctgag ccttgccgga cagcacatct ccgtgccatg gagattgcca aacaggcagg 300
 tgcactgctc 310

<210> 1143
 <211> 226
 <212> nucleic acid
 <213> Zea mays

<400> 1143

cgacgagttc ggccgcatgc tcgtcgctat cctccgcgac aacggcgctc acgacggcgg 60
 cgtcgtcttc gactccggcg cgcgcaccgc gtcgccttc gtcaccctgc gcgccgacgg 120
 ggagcgcgag ttcatgttct accgcaatcc cagcgtgac atgctcctca ccgccgacga 180
 gctcaacgtc gagctcatca agagggctgc ggtcttccac tacgga 226

<210> 1144
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 1144

atccatcctc gctacaagac gagaagaagc ttgtagagtc tattaaattc gctaattcgt 60
 gtggagcaat caccgccacg aagaaggggtg cgatcccgtc tttgccact gaaactgagg 120
 tcttgcagct aatagagaag gcatagatag atcactgtaa ttgctttggt tttcactagc 180
 ttccacttct gcaaattgca aaatgtattg tattctgac tggaacagaa gaagtgggtg 240
 ctccatctta cctgccattt 260

<210> 1145
 <211> 328
 <212> nucleic acid
 <213> Zea mays

<400> 1145

cccacgcgtc cgcaataagc ttgattgctg agccttgccg gacagcacat ctccgtgcca 60

tggagattgc caaagaggca ggtgcactgc tctcttatga cccaaacctg agggaggcac 120
 tatggccatc ccgtgaggag gcccgacccc agatcttgag catctgggac caggcagaca 180
 ttgtcaaggt cagcgaagtc gagctcgagt tcttgacagg catcgactcg gtggaggacg 240
 atgttgtcat gaagctgtgg cggcctacca tgaagctgct cctagtgact cttggagatc 300
 aagggtgcaa gtactatgcc agggattt 328

<210> 1146
 <211> 314
 <212> nucleic acid
 <213> Zea mays

<400> 1146

cttgattgct gagccttgcc ggacagcaca tctccgtgcc atggaaattg ccaaagaggc 60
 tgggtgcactg ctctcttacg acccaaacct gagggaggca ctttggccat ccctgagga 120
 ggcccgaccc cagatcttga gcatctggga ccaggcagat atcgtcaagg tcagcgaagt 180
 cgagcttgag ttcttgacag gcatcaactc agtggaggac gatgttgtca tgaagctgtg 240
 gcgacctacc atgaagctgc tcctgggtgac tcttggagat caaggatgca agtactatac 300
 cagggatttc catg 314

<210> 1147
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1147

ccggacagca catctccgtg ccatggagat tgccaaagag gcagggtgcac tgctctctta 60
 tgacccaaac ctgaggggagg cactatggcc atcccgtgaa gagggccgca ccagatctt 120
 gagcatctgg gaccaggcag acattgtcaa ggtcagcgaa gtcgagctcg agttcttgac 180
 aggcatcgac tcggtggagg acgatgttgt catgaagctg tggcggccta ccatgaagct 240
 gtcctagtgt actcttggag atcaagggtg caagtactat gccagg 286

<210> 1148
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1148
 cggacgcgtg gtggagattg ccaaagaggc aggtgcactg ctctcttatg acccaaacct 60
 gaggacggca ctatggccat cccgtgagga ggcccgacc cagatcttga gcatctggga 120
 ccaggcagac attgtcaagg tcagcgaagt cgagctcgag ttcttgacag gcatcgactc 180
 ggtggaggac gatgttgtca tgaagctgtg gcggcctacc atgaagctgc tcctagtgc 240
 tcttgagat caaggggtgca agtactatgc ca 272

<210> 1149
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1149
 agctcaacgt cgagctcatc aagagggctg cggctctcca ctacggatca ataagcttga 60
 ttgctgagcc ttgccggaca gcacatctcc gtgccatgga gattgccaaa gaggcagggtg 120
 cactgctctc ttatgaccca aacctgaggg aggcactatg gccatcccggt gaggaggccc 180
 gcaccagat cttgagcatc tgggaccagg cagacattgt caaggtcagc gaagtcgagc 240
 tcgagttctt gacaggcatc gactcgggtg aggacgatgt tgtcat 286

<210> 1150
 <211> 263
 <212> nucleic acid
 <213> Zea mays

<400> 1150
 gcggctcttc actacggatc aataagcttg attgctgagc cttgccggac agcacatctc 60
 cgtgccatgg aaattgccaa agaggctggt gcaactgctc cttacgaccc aaacctgagg 120
 gaggcacttt ggccatcccg gaggaggccc gcaccagat cttgagcatc tgggaccagg 180
 cagatatcgt caaggtcagc gaagtcgagc ttgagttctt gacaggcatc aactcagtgg 240
 aggacgatgt tgtcatgaag ctg 263

<210> 1151
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 1151
 aggtggagga cgatgttgtc atgaagctgt ggcggcctac catgaagctg ctccatagtg 60
 ctcttgagga tcaaggggtgc aagtactatg ccagggattt ccatggcgct gtgccttcct 120
 tcaaagtaca acaagttgat acaactggcg caggtgacgc gttcgttggt gctctgctcc 180
 aaaggatcgt taaagatcca tcctcgctac aagatgagaa gaagcttggtg gagtcgatta 240
 aattcgctaa cgcgtgcgga gcgatcacca ccacgaagaa gggggcgatc tcgtcgc 297

<210> 1152
 <211> 293
 <212> nucleic acid
 <213> Zea mays

<400> 1152
 caggcatcga ctcggtggag gacgatgttg tcatgaagct gtggcggcct accatgaagc 60
 tgctcctagc gactcttgta gatcaagggg gcaagtacta tgccagggat ttccatggcg 120
 ctgtgccttc cttcaaagta caacaagttg atacaactgg cgcaggtgac gcgttcgttg 180
 gtgctctgct ccaaaggatc gttaaagatc catcctcgct acaagatgag aagaagcttg 240
 tggagtcgat taaattcgct aacgcgtgcg gagcgatcac caccacgaag aag 293

<210> 1153
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1153
 atcgactcgg tggaggacga tgttgtcatg aagctgtggc ggccctaccat gaagctgctc 60
 ctagtgactc ttggagatca aggggtgcaag tactatgccca gggatttcca tggcgctgtg 120
 ccttccttca aagtacaaca agttgatcaa ctggcgcagg tgacgcgttc gttggtgctc 180
 tgctccaaag gatcgttaaa gatccatcct cgctacaaga tgagaagaag cttgtggagt 240
 cgattaaatt cgctaacgcg tgcggagcga tcaccaccac gaagaa 286

<210> 1154
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 1154
gagaagaagc ttgtggagtc gatggatcct taacgatcct ttggagcaga gcaccaacga 60
acgcgtcacc tgcgccagtt gtatcaactt gttgtacttt gaaggaaggc acagcgccat 120
ggaaatccct ggcatagtac ttgcaccctt gatctccaag agtcactagg agcagcttca 180
tggtagaccg taacagcttc atgacaacat cgtcctccac cgagtcgatg cctgtcaaga 240
actcgagctc gacttcgctg accttgacaa tgtctg 276

<210> 1155
<211> 276
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (109)
<223>

<400> 1155
agctcaacgt cgagctcatc aagagggctg cggctctcca ctacggatca ataagcttga 60
ttgctgagcc ttgccggaca gcacatctcc gtgccatgga gattgccana gaggcagggtg 120
cactgctctc ttatgaccca aacctgaggg aggcactatg gcaatcccgt gaggaggccc 180
gcaccagatc ttgagcatct gggacaggca gacattgtca aggtcaacga gtcgagctcg 240
agtcttgaca ggatcgactc ggtggaggcg atgttg 276

<210> 1156
<211> 230
<212> nucleic acid
<213> Zea mays

<400> 1156
agcacatctc cgtgccatgg agattgccaa agaggcagggt gcactgctct cttatgaccc 60
aaacctgagg gaggcactat ggccatcccg tgaggaggcc cgcacccaga tcttgagcat 120
ctgggaccag gcagacattg tcaaggctcag cgaagtcgag ctcgagttct tgacaggcat 180
cgactcggtg gagtacgatt ttgtcatgaa gctggggcgg cctaccatga 230

<210> 1157
<211> 294

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1. The first step is to identify the problem. This involves understanding the current situation and the goals that need to be achieved.

<400> 1163

<400>	1164
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```
<210>      1165
<211>      291
<212>      nucleic acid
<213>      Zea mays

<220>
<221>      unsure
<222>      (11), (17), (215), (221), (277), (290)
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<223> unsure at all n locations

<400> 1165

gaacgtgctg nccctgnggt ttgacgggct caagctgctc gtcgtcaccg acggggacaa 60
aggatgcagg tacttcacca aggacttcaa gggcagcgtg cccggcttca aggtcgacac 120
cgtcgacacc accggcgccg gcgacgcctt cgtcggctcc ctctcgtca acgtcgccaa 180
ggacgactcc atcttccaca acgaggagaa gctcnggatg ntctcaagtt ctccaacgcc 240
tgcgggcgcca tctgcaccac caagaagggc gccatcncgg cgctgccan g 291

<210> 1166

<211> 371

<212> nucleic acid

<213> Zea mays

<400> 1166

cgggcgactg gacctgggce tgggtcgggc cgccaggtgt tccactacgg ctccatctcg 60
ctcatctccg agcctgcccg ctggcgccac atggccgcca tgcgcgcacc aaggccgcgg 120
gcgtgctctg ctctacgac cccaacgtgc gcctcccgt ctggccgctc cccgacgccg 180
cacgcgaggg catctcagc atctggaagg aggccgactt catcaaggtc agcgacgacg 240
aggtggcctt cctcacgcgc ggggacgcca acgacgagaa gaacgtgctg tccctgtggt 300
ttgacgggct caagctgctc gtcgtcaccg acggggacaa gggatgcagg tagcttcacc 360
aagacttcaa g 371

<210> 1167

<211> 310

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (281)

<223>

<400> 1167

gtcgtccccg acgtggccgg gctgtcgtc gccagtcgg gcggcttcgt caaggcacc 60
ggcggcgcgc ccgccaacgt cgctgcgcc atcgccaagc tcggcggtac ctccgccttc 120
gtaggcaagt tcggcgacga cgagttcggg cacatgctgg tgaacatcct gaagcagaac 180

aacgtgaacg cggacgggtg cctgttcgac aagcacgcgc ggacggcgct ggggttcgtg 240
acgctcaagc agtacgggga gcgcgagttc atgttctaca ngaacccgag cgacgacatg 300
ctgctgacgg 310

<210> 1168
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 1168

cccacgcgtc cgtcgacaag cacgcgcgga cggcgctggc cttcgtgacg ctcaagcacg 60
acggggagcg cgagttcatg ttctacagga acccgagcgc ggacatgctg ctgacggagg 120
cggagctgga cctgggcctg gtgcggcgcg ccagggtgtt ccactacggc tccatctcgc 180
tcatctccga gccgtgccgc tcggcgacaca tggccgccat gcgcgcagca aggccgcggg 240
cgtgctctgc tcctacgacc ccaacgtgcg cctcgcgctc 280

<210> 1169
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 1169

cccacgcgtc cgcccacgcg tccggatgca ggtacttcac caaggacttc aagggcagcg 60
tgcccggctt caaggctgac accgtcgaca ccaacggcgc cggcgacgcc ttcgtcggct 120
ccctcctcgt caacgtcgcc aaggacgact ccatcttcca caacgaggag aagctccgcg 180
aggtctctaa gttctccaac gcctgcagcg ccatctgcac caccaagaag ggcgccatcc 240
cggcgctgcc cacggctgcc accgcccagg acctcatcgc caaggccaac tagatggccg 300
cacacccgc c 311

<210> 1170
<211> 266
<212> nucleic acid
<213> Zea mays

<400> 1170

cgaggtggcc ttctcacgc gcggggacgc caacgacgag aagaacgtgc tgtccctgtg 60

gtttgacggg ctcaagctgc tcgtcgtcac cgacggggac aagggatgca ggtacttcac 120
 caaggacttc aagggcagcg tgcccggctt caaggctgac accgtcgaca ccaccggcgc 180
 cggcgacgcc ttctgtcggt cctcctctgt caacgtcgcc aaggacgact ccatcttcca 240
 caacgaggag aagctccgcg aggccc 266

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 tcttccacaa cgaggagaag ctccgcgagg ctctcaagtt ctccaacgcc tgcagcgcca 180
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 <212> nucleic acid
 <213> Zea mays

<400> 1172
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 aacgaggaga agtccgcga ggccctcaag ttctccaacg cctgcgggcc atctgcacca 180
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 <212> nucleic acid
 <213> Zea mays

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cacggtcgac accaccggcg ccggcgacgc ctctcgctggc tccctcctcg tcaacgtcgc 180
caaggacgac tccatcttcc acaacgagga gaagctccgc gaggccctca agttctccaa 240
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<212> nucleic acid
<213> Zea mays

<400> 1174

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gctccatctc gctcatctcc gagccgtgcc gctcggcgca catggccgcc atgcgcgcag 180
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<212> nucleic acid
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gctccgcgag gctctcaagt tctccaacgc ctgcgaggcc atctgcacca ccaagaaggg 180
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<212> nucleic acid
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<400> 1176

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acgggctcaa gctgctcgtc gtcaccgacg gggacaaggg atgcaggtac ttcaccaagg 180
acttcaaggg cagcgtgccc ggcttcaagg tcgacaccgt cgacaccacc ggcgcggcg 240
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<211> 288
<212> nucleic acid
<213> Zea mays

<400> 1177

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aacgaggaga agctccgcga ggccctcaag ttctccaacg cctgcggggc atctgcacca 180
ccaagaaggg cgccatcccg gcgctgcca cggtcgccac cgcccaggac ctcatcgcca 240
aggccaacta gatggcgca cgccccgccc ttccaccacg tcaactgtc 288

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agcacgacgg ggagcgcgag ttcatgttct acaggaaccc gagcgcggac atgctgctga 180
cggaggcgga gctggacctg ggccctgggtc ggcgcgccag ggtgttccac tacggctcca 240
tctcgctcat ctccgagcgg tgccgctcgg cg 272

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 ctgacgaagg cgaacctgaa cttgggcttg ttccgcgcgc caaggtgttc cactacggct 180
 ccatctcggg catcttcgag ccgtgccgct cggcgaaaat ggccg 225

<210> 1180
 <211> 243
 <212> nucleic acid
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<400> 1180

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 ggggacaagg gatgcaggta cttcaccaag gacttcaagg gcagcgtgcc cggcttcaag 180
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 gtc 243

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 <212> nucleic acid
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<400> 1181

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 gtggccttcc tcacgcgcgg cgacgccaac gacgagaaga acgtgctgtc cctgtgggtt 180
 gacgggctca agctgctcgt cgtcaccgac ggggacaagg gatgcaggta cttcaccaag 240
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 <212> nucleic acid
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<400> 1182

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cgcacgcgag ggcataccta gcatctggaa ggaggccgac ttcataaagg tcagcgacga 180
 cgaggtggcc ttctcacgc gcggggacgc caacgacgag aagaacgtgc tgtccctgtg 240
 gtttgacggg ctcaagctgc tcgtc 265

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<400> 1183

cccaaggact tcaagggcag cgtgcccggc ttcaaggctg acaccgtcga caccaccggc 60
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 cacaacgagg agaagctccg cgaggccctc aagttctcca acgctgcgg gccatctgca 180
 ccaccaagaa gggcgccatc ccggcgctgc ccacggctgc caccgccag gacctcatcg 240
 ccaaggccaa ctagatggcc gcacgccccg ccgttc 276

<210> 1184
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 <212> nucleic acid
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<400> 1184

gaacgtgctg tccctgtggt ttgacgggct caagctgctc gtcgtcacgc ggggacaagg 60
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 tcgacaccac cggcgccggc gacgccttcg tcggtcccc tctcgtcaa cgtcgccaag 180
 gacgactcca tcttcacaa cgaggagaag ctccgcgagg ctctcaagtt ctccaacgcc 240
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 <213> Zea mays

<400> 1185

gcgcggacat gctgctgacg gagggcgact ggacctgggc ctggtgcggc gcgccacggt 60

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<400> 1188

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ttcgtaggca agtt 314

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<211> 308
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 ggcgagatgc tgatcgactt cgtccccgac gtggccgggc tgctcgtggc cgagtcgggc 240
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 ggcggtatcct ccgccttcgt aggcaagttc g 331

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 <212> nucleic acid
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 gtagccgcgt ccatctcgca gcagcaagca agcgcgacca aatggcgcct ctaggagacg 120
 gcggagtgtc gccgcggcgg cgtccaacaa cctggtggtg tcgttcggcg agatgctgat 180
 cgacttcgtc cccgacgtgg ccgggctgtc gctggccgag tcgggcgggt tcgtcaaggc 240
 acccggcggc gcgctcgcca acgtcgctc cgcctatgcc aagctcggcg gatcctccg 299

<210> 1200
 <211> 276
 <212> nucleic acid
 <213> Zea mays

<400> 1200

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 aagcaagcgc gaccaaattg cgcctctagg agacggcgga gctgctgccg cggcgggcgtc 120
 caacaacctg gtggtgtcgt tcggcgagat gctgatcgac ttcgtccccg acgtggccgg 180
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 cgcctgcgcc atcgccaagc tcggcggtct ctccgc 276

<210> 1201
 <211> 278
 <212> nucleic acid
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<400> 1201

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 ccaaattggcg cctctaggag acggcggact gctgccgcgg cggcgtccaa caacctggtg 180
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<210> 1202
 <211> 190
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (67)
 <223>

<400> 1202

gtagccgcgt ccacctcgca gcagcaagca agcgcgacca aatgggcgcc tctaggagac 60
 ggccgantgc tgccgcggcg gcgtccaaca acctggtggt gtcgttcggc gagatgctga 120
 tcgacttcgt ccccgacgtg gccgggtgt cgtggccga gtcgggcggc ttcgtcaagg 180
 caccgcggcg 190

<210> 1203
 <211> 275
 <212> nucleic acid

<213> Zea mays

<400> 1203

agcacaatcg cctcgcccttc ccttccccac cagcccccggt ctctctctctt cttctctcttg 60
actctctcttc tcgtagccgc gtccacctcg cagcagcatg caagcgcgac caaatggcgc 120
ctctaggaga cggcggagct gctgccgcgg cggcgtccaa caacctggtg gtgtcgttcg 180
gcgatatgct gatcgacttc gtccccgacg tggccgggct gtcgctggcc gagatcggcg 240
gcttcgtcaa ggcccccggt ggcgcgctcg ccaac 275

<210> 1204

<211> 316

<212> nucleic acid

<213> Zea mays

<400> 1204

gtctctctctt tctctctgac tctctctctc gtagccgcgt ccacctcgca gcagcaagca 60
agcgcgacca gatgggcgct ctaggagacg gcggagtgtt gccgcggcgg cgtccaacaa 120
cctggtggtg tcgttcggcg agatgctgat cgacttcgtc cccgacgtgg cggggtgtc 180
gctggccgag tcgggcggct tcgtcaaggc attcggcggc gcgcccgcga acgtcgcttg 240
cgacatcgcc aagctcggcg gatcctccgc ctctgtaggc aagttcggcg acgacgagtt 300
cgggcacatg ctggtg 316

<210> 1205

<211> 247

<212> nucleic acid

<213> Zea mays

<400> 1205

ctctctctctt cgtagccgcg tccacctcgc agcagcaagc aagcgcgact aaatggcgtc 60
tctaggagac ggtggactgc tgctgcggcg gcgtccaaca atctggtggt gtcgttcggc 120
gagatgctga tcgaattcgt ccccgacgtg gctgggctgt cgctggccga ttcgggcggc 180
ttcgtcaagg caccctgcgg cgcgctcgct aatgtcgctt tcgccatcgc caagctcggc 240
ggatcct 247

<210> 1206

<211> 418
 <212> nucleic acid
 <213> Zea mays

 <400> 1206

 cgacgagctc aacgtcgagc tcatcaagag ggctgcggtc ttccactacg gatcagggag 60
 cttgattgct gagccttgcc ggacagcaca tctccgtgcc atggagattg ccaaagaggc 120
 aggtgcactg ctctcttatg acccaaacct gagggaggca ctatggccat cccgtgagga 180
 ggcccgcacc cagatcttga acatctggga ccaggcagac attgtcaagg tcagcgaagt 240
 cgagctcgag ttcttgacaa gcatcgactc ggtggaggac gatgttgtca tgaagctgtg 300
 gcggcctacc atgaagctgc tcctagtac tcttgagat caagggtgca agtactatgc 360
 cagggatttc catggcgctg tgccttcctt caaagtacaa caagttgata caactggc 418

<210> 1207
 <211> 295
 <212> nucleic acid
 <213> Zea mays

 <400> 1207

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 cttgattgct gagccttgcc ggacagcaca tctccgtgcc atggagattg ccaaagaggc 120
 aggtgcactg ctctcttatg acccaaacct gagggaggca ctatggccat cccgtgagga 180
 ggcccgcacc cagatcttga gcatctggga ccaggcagac attgtcaagg tcagcgaagt 240
 cgagctcgag ttcttgacag gcatcgactc ggtggaagac gatgttgtca tgaag 295

<210> 1208
 <211> 439
 <212> nucleic acid
 <213> Zea mays

 <400> 1208

 actcggaggg gtgcctgttc gacaagcacg cgcggacggc gctggccttc gtgacgtca 60
 agcacgacgg ggagcgcgag ttcattgtct acaggaaccc gagcgcggac atgctgctga 120
 cggaggcgga gctggacctg ggctgggtgc ggcgcgccag ggtgttccac tacggctcca 180
 tctcgtcat ctccgagccg tgccgctcgg cgcacatggc cgccatgcgc gcagccaagg 240

ccgcgggcgt gctctgctcc tacgacccca acgtgcgcct cccgctctgg ccgtcgcccg 300
acgccgcacg cgagggcatc ctcagcatct ggaaggaggg cgacttcacg aaggtcagcg 360
acgacgaggt ggccttcctc acgcgcgggtg acgccaacga cgagaagaac gtgctgtccc 420
tgtggtttga cgggctcaa 439

<210> 1209
<211> 383
<212> nucleic acid
<213> Zea mays

<400> 1209

aatcgacaag cacgcgcgga cggcgcctggc ctctgtgacg ctcaagcacg acggggagcg 60
cgagttcatg ttctacagga acccgagcgc ggacatgctg ctgacggagg cggagctgga 120
cctgggcctg gtgcgggcgc ccagggtgtt ccaactacggc tccatctcgc tcatctccga 180
gccgtgccgc tcggcgcaca tggccgccat gcgcgcagcc aaggcggcgg gcgtgctctg 240
ctcctacgac cccaacgtgc gcctcccgtc ctggccgtcg cccgacgccg cacgcgaggg 300
catcctcagc atctggaagg aggccgactt catcaaggtc agcgacgacg aggtggcctt 360
cctcacgcgc ggggacgcca acg 383

<210> 1210
<211> 451
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (439)
<223>

<400> 1210

cgacgagttc gggcacatgt tggatgaacat cctgaagcag aacattgtga actcggaggg 60
gtgcctgttc gacaagcacg cgcggacggc gctggccttc gtgacgctca agcacgacgg 120
ggagcgcgag ttcatgttct acaggaaccc gagcgcggac atgctgctga cggaggcgga 180
gctggacctg ggcttgggtg ggcgcgcca ggtgttccac tacggctcca tctcgtcat 240
ctccgagccg tgccgctcgg cgcacatggc cgccatgcgc gcagccaagg ccgcgggcgt 300
gctctgctcc tacgacccca acgtgcgcct tccgctctgg ccgtcgcccg acgccgcacg 360

cgagggcatc ctcagcatct ggaaggaggc cgacttcac aaggtcagcg acgacgaggt 420
ggccttcctc acgcgcgng acgccaacga c 451

<210> 1211
<211> 497
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (11)...(13)
<223> unsure at all n locations

<400> 1211

gagagttctc nnnntaagta gcttactgtc ttggtagtac tcgtaccgga tcggagtttc 60
cgaccaaacc gtccggtccg acaggacgcc tcgaccgggg ttggctttct tgccgttaag 120
ccccaacggg gacggcaagt taatgtatta caggaacca accgcggaca tgctgtttac 180
ggaggcggag ctggacctgg gcctgggtccg gtgcgccagg gtgttccact acgggtccat 240
ctcgtcatc tccgatccgt gccggtcggc gcacatggcc gacatgcgcg cagccaatgc 300
cgcgggcgtg ctctgggtcct acgacctcaa cgtgcgcctt ccgtctctggc cgtcgccccga 360
cgccgtacgc gagggcatcc tcagcatctg gaacgaggcc gacttcacga aggtcagcga 420
cgacgatgtg gccttactca cgcgcgggga cgccaacgac gagaagaacg tgctgtccct 480
gtggtttgac gggctca 497

<210> 1212
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 1212

ctccatcttc cacaacgagg agaagctccg cgaggtctc aagttctcca acgcctgcgg 60
cgccatgtgc accaccaaga agggcgccat cccggcgtg cccacggtcg ccaccgcccc 120
ggacctcatc gccaaaggcca actagatggc cgcacgcccc gccgttccac cacgtcactg 180
tccccgcgcg ccccgccccct cgtcgtcgac gtccctcggtt tcggttcatt aggtagatcg 240
agtcttaccg tcc 253

<400> 1215
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 cgacaggcgc gctttgacgg cgctgggggt cctgactctc aagcacgacg gggagcgcga 120
 gttcatgttc tacaggaacc cgagcgcgga catgctgctg acggaggcgg agctggacct 180
 gggcctgggtg cggcgcgcga aggtgttcca ctacggctcc atctcgctca tctccgagcc 240
 gtgccgctcg gcgcacatgg ccgccatgcg cgcagccaaa gccgtgggcg tgctctgctt 300
 ctacgacccc aacgtgcgcc ttccgctctg gccgtcgacc gacgccgcac gcgagggcat 360
 actcagcatc tggaaagagg ccgacttcat caaggtcagc gac 403

<210> 1216
 <211> 315
 <212> nucleic acid
 <213> Zea mays

<400> 1216
 agctgcgaga ggtgtgaagg acgtcgtgct atgactggcc gcatgattca ttccggggcca 60
 ccaggcctat gggaggcagc ccccggtacc attcgtgggg actacgccgt ggaggtcggc 120
 aggaatgtca tccatggaag cgactccgtg gagaacggga tgaaggagac gctctctggt 180
 tcctgaagggt gtgcacaagc gagagcacct tcatccctga tctacgaggc tgagcattga 240
 gctggatgca tgctgctcat ggaaccagag tttgtgagta tatctgttgc tctgctagat 300
 catattacgc ctggg 315

<210> 1217
 <211> 268
 <212> nucleic acid
 <213> Zea mays

<400> 1217
 ctttttctga atacctcaca gatccaaaaa tgtcttccga acagagtttc attgccatca 60
 agcccgatgg tgtccagcgt ggcctcggtg gacccatcat ctctcgcttc gagtcccggtg 120
 gcttcaagct cgccgctttg aagttggtct ctccgcctcg tgagctcttc gagaagcaat 180
 atgccgacct ctccgagaag cttttcttcc ccggtctcgt tacatacatg ttgagcggcc 240
 ccatcgttgc catggtctgg gagggccg 268

<210>	1218
<211>	284
<212>	nucleic acid
<213>	Zea mays

```
<220>
<221>      unsure
<222>      (268)
<223>
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ccggtccatc	gccccctccct	cgggtctgcg	ctcccacagc	ctcacccttg	cgcccccgcc	60
gattcgcgtc	gccctttggt	ggaaggaacg	atggagcaga	ccttcatcat	gatcaagccc	120
gacggcgtcc	agcggggcct	gatcggggac	atcatcagtc	gcttcgagaa	gaaagggttc	180
tacctcaagg	ggatgaagtt	catgaacgtg	gagaggtcct	tcgcgcacag	cactacgctg	240
acctttccga	caagactttc	ttccccngt	tggtggagta	catc		284

```
<220>
<221>      unsure
<222>      (6)
<223>
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tgcgcncctc	cctccggtct	gcgctcccac	agcctcacc	ctgcgcccc	gccgattcgc	60
gtcgcccttt	gttgaagga	acgatggagc	agaccttc	catgatcaag	cccgcggcg	120
tccagcgggg	cctgatcggg	gacatcatca	gtcgcttcga	gaagaaagg	ttctacctca	180
aggggatgaa	gttcatgaac	gtggagaggt	ccttcgcgca	cagcactacg	ctgacctttc	240
cgacaagcct	ttcttccccg	ggttggtgga	gtacatcaat	tccggccccg	tggtgg	296

<400> 1220

<210> 1223
 <211> 327
 <212> nucleic acid
 <213> Zea mays

 <400> 1223

 cggacgcgtg gcgctccac agcctcacc ctgcgcccc gccgattcgc gtcgcccctt 60
 gttggaaaga acgatggagc agaccttcat catgatcaag cccgacggcg tccagcgggg 120
 cctgatcggg gacatcatca gtcgcttcga gaagaaaggg ttctacctca aggggatgaa 180
 gttcatgaac gtggagaggt ctttcgcgca cagcactacg ctgacctttc cgacaagcct 240
 ttcttccccg gggttggtgga gtacatcatt tccggccccg tgggtggcgat ggtgtgtgag 300
 gggaagacgt cgtgtgactg gcccaga 327

<210> 1224
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 1224

 cccccccacc cgtccatcgc ccctccctcc ggtctgcgct cccacagcct caccctgcg 60
 cccccgccga ttgcgctcgc cttttgttgg aaggaacgat ggagcagacc ttcatcatga 120
 tcaagcccga cggcgtccag cggggcctga tcggggacat catcagtcgc ttcgagaaga 180
 aagggttcta cctcaagggg atgaagttca tgaacgtgga gaggtccttc gcgcagagca 240
 ctacgctgac ctttccgaca agcctttctt ccccggttg gtgg 284

<210> 1225
 <211> 256
 <212> nucleic acid
 <213> Zea mays

 <400> 1225

 cccctccctc cggctctgcgc tcccacagcc tcaccctgc gccccgccg attcgcgctc 60
 cctttgttg gaaggaacga tggagcagac cttcatcatg atcaagcccg acggcgtcca 120
 gcggggcctg atcggggaca tcatcagtcg cttcgagaag aaagggttct acctcaaggg 180
 gatgaagttc atgaacgtgg agaggtcctt cgcgcacagc actacgctga ctttccgac 240
 aagcctttct tccccg 256

<210> 1226
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 1226

 gagcagacct tcatcatgat caagcccgac ggcgtccagc ggggcctgat cggggacatc 60
 atcagtcgct tcgagaagaa agggttctac ctcaagggga tgaagttcat gaacgtggag 120
 aggtccttcg cgcacagcac tacgctgacc tttccgacaa gcctttcttc cccgggttgg 180
 cgatatacat catttccggc cccgtgggtg cgatgggtgt ggaggggaag gacgtcgtgt 240
 tgactggccg caggatcatt ggggccacca ggcctt 276

<210> 1227
 <211> 357
 <212> nucleic acid
 <213> Zea mays

 <400> 1227

 ggaaggaacg atggagcaga cttcatcat gatcaagccc gacggcgtcc agcgggcctg 60
 atcggggaca tcatcagtcg cttcgagaag aaagggttct acctcaaggg gatgaagtgc 120
 atgaacgtgg agaggtcctt cgcgcagaaa gatacgtga cttttccgac aagcctttct 180
 tccccgggtt ggtggagtac atcatttccg gccccgtggt ggcgatggtg tgggagggaa 240
 ggacgtcgtg ttgactggcc gcaggatcat tggggccaca aggcttggga ggcagccccg 300
 gtaccattcg tggggactag ccgtggaagt cggcaggaat gtcatccagg aagcgac 357

<210> 1228
 <211> 279
 <212> nucleic acid
 <213> Zea mays

 <400> 1228

 atgcctcccc caccgtcca tcgcccctcc ctccggtctg ctctcccaca gcctcacccc 60
 tgcgcccccg ccgattcgcg tcgccctttg ttggaaggaa cgatggagca gaccttcac 120
 atgatcaagc ccgacggcgt ccagcggggc ctgatcgggg acatcatcag tcgcttcgag 180
 aagaaagggg tctactccaa ggggatgaag ttcatgaacg tggagaggtc cttcgcgcac 240

agcactacgc tgacctttcc gacaagcttt cttccccgg 279

<210> 1229
 <211> 301
 <212> nucleic acid
 <213> Zea mays

<400> 1229

ttttcgtcac ccctgacget cgacgcctct cctcctctcc tccccacccc gtccatcgcc 60
 cctccctccg gtctgcgctc ccacagcctc acccctgcgc ccccgccgat tcgcgtcgcc 120
 ctttgttgga aggaacgatg gagcagacct tcatcatgat caagcccgac ggcgtccagc 180
 ggggcctgat cggggacatc atcagtcgct tcgagaagaa agggttctac ctcaagggga 240
 tgaagttcat gaacgtggag aggtccttcg cgcacagcac tacgtgacc tttccgacaa 300
 g 301

<210> 1230
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 1230

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 ccctgcgccc ccgcccattc gcgtcgccct ttggtggaag gaacgatgga gcagaccttc 120
 atcatgatca agcccgacgg cgtccagcgg ggctgatcg gggacatcat cagtcgcttc 180
 gagaagaaag ggttctacct caaggggatg aagttcatga acgtggagag gtccttcgcg 240
 cagagcacta cgctgacctt tccgac 266

<210> 1231
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 1231

cggggcctga tcggggacat catcagtcgc ttcgagaaga aagggttcta cctcaagggtg 60
 atgaagttca tgaacgtgga gaggtccttc gcgcacagca ctacgtgac ctttccgaca 120
 agcctttctt ccccggttg gtggagtaca tcatttcggtg ccccggtgtg gcgatggtgt 180

gggaggggaa ggacgtcgtg ttgactggcc gcaggatcat tgggccacca ggccttgga 240
ggcagccccg gtaccattcg tggggat 267

<210> 1232
<211> 332
<212> nucleic acid
<213> Zea mays

<400> 1232

gtccagcggg gcctgatcgg ggacatcatc agtcgcttcg agaagaaagg gttctacctc 60
aaggggatga agttcatgaa cgtggagagg tccttcgcgc acagcactac gctgaccttt 120
ccgacaagcc tttcttcgcc gggttggtgg agtacatcat ttccgagccc gtggtggcga 180
tggtgtggga ggggaagacg tcgtgtgact gccgcagatc attggggcca cagcccttag 240
gagcagcccc ggtaccatcg tgggactagc cgtgaagtcg cagaatgcat catgaagcga 300
tcgtgagacg ggagaagagt cgtctctgtc ct 332

<210> 1233
<211> 183
<212> nucleic acid
<213> Zea mays

<400> 1233

cgcaagaacg atggagcaga ccttgatcat gatcaagcac gacggcgctc agcggggcct 60
gatcggggac atcatcagtc gcttcgagaa gaaaggggtc tacctcaagg ggatgaagtt 120
catgaacgtg gagaggtcct tcgcgcacag ctactacgct gacctgtccg acaagccttt 180
ctt 183

<210> 1234
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 1234

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tgatcaagcc cgtcggcgtc cagcggggcc tgatcgggga catcatcagt cgcttcgaga 120
agaaaggggt ctacctcaac gggatgaagt tcatgaacgt ggagaggtcc ttcgcgcaca 180

gcactacgct gacctttccg acaagccttt cttccccggg ttggtggagt acatcattta 240
 cggcaccgtg gtggcgatgg tgcggaggc gaaggacgtc gt 282

<210> 1235
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 1235

ctcgacgct ctcctcctct cctatccac acgttcacg cccctccct ccggtctg 60
 ctccacagc ctcacccctg cgcgccgcc gattcgctc gccctttgtt ggaaggaacg 120
 atggagcaga cttcatcat gatcaagccc gacggcgctc agcggggcct gatcggggac 180
 atcatcagtc gtttcgagaa gaaaggggtc tacctcaagg ggatgaagtt catgaacgtg 240
 gagaggctct tcgcgcagag ccactacgtc gacctttccg aca 283

<210> 1236
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 1236

cgcctctct cctctcctcc cccacccgct catcgccct cctccggct tgcgtccca 60
 cagcctcacc cctgcgcccc cgcgattcg cgtcgccctt tggtggaagg aacgatggag 120
 cagaccttca tcatgatcaa gcccgacggc gtccagcggg gcctgatcgg ggacatcatc 180
 agtcgcttcg agaagaaagg gttctacctc aaggggatga agttcatgaa cgtggagagg 240
 tccttcgcgc agagcactac 260

<210> 1237
 <211> 260
 <212> nucleic acid
 <213> Zea mays

<400> 1237

cgcctctct cctctcctcc cccacccgct catcgccct cctccggct tgcgtccca 60
 cagcctcacc cctgcgcccc cgcgattcg cgtcgccctt tggtggaagg aacgatggag 120
 cagaccttca tcatgatcaa gcccgacggc gtccagcggg gcctgatcgg ggacatcatc 180

ggaaggaacg atggagcaga cttcatcat gatcaagcac gacggcgcc agcgnngcct 60
gatcngggac atcatcagtc gcttcgagaa gaaggggtct acctcaagg gatgaagttc 120
atgaacgtgg agaggtcttc gcgcagagca ctacgtgac ctttccgaca agccttntct 180
tcccgggggtt ggtggagtac atcatttccg gccccgtggt ggcgatggtg tgggagggga 240
aggacgtcgt gttgactggc cgcagatcat tggggccacc agcttgggag gcaccccggt 300
acattcgtgg gat 313

<210> 1244
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1244

gtggagaacg ggaagaagga gatcgctctc tggttccctg aaggtgtggc acagtggaag 60
agcaaccttc atccctggat ctacgaggct tgagcagttg agcttggatg cttgcctgc 120
tccatggaaa ccagagtttt gtttgagtat tatctgttgg ctctggctga agagtcataa 180
tttagcgctc tgtgtgttac accagagtta agtctgctg aacttatgtg gcatttgttt 240
gagtttctgc cttcgtgccc tgttttctaa 270

<210> 1245
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 1245

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cctggatcta cgaggcttga acagttgagc ttggatgact tgctgcttc catggaaacc 120
agagttttgt ttgagtatta tctgttggct ctggctgaag agtcataatt tagcgctctg 180
tgtgttacac cagagttaag tctgctgaa cttatgtggc atttgtttga gtttctacct 240
tcgtgcctg ttttctaatt taccgtgggt gtgaa 275

<210> 1246
<211> 271
<212> nucleic acid
<213> Zea mays

ggtccttcgc tcatcagcac tacgtgacc tttccgacaa gcctttcttc cccgggttgg 300
tggagtacat catttccggc cccgtggtgg cgattgtgtg ggaaggg 347

<210> 1249
<211> 340
<212> nucleic acid
<213> Zea mays

<400> 1249

gcggagcaga ccttcatcat gatcaagccc ggcggcgtcc agcggggcct gatcggggac 60
atcagcagtc gcttcgagag gaggggggttc tacctcaagg ggatgaagtt catgaacgtg 120
gagaggctct tcgcgcagca gcactacgtc gacctttccg acaagccttt cttccccggg 180
ttggtggagt acatcatttc cggccccgtg gtggcgatgg tgtgggaggg gaaggacgtc 240
gtgttgactg gccgcaggat cattggggcc accaggcctt gggaggcagc ccccggtacc 300
attcgtgggg actacgccgt ggaagtcggc aagaatgtca 340

<210> 1250
<211> 464
<212> nucleic acid
<213> Zea mays

<400> 1250

cggaecgctg ggctccccca cccgtccatc gccccctccc tccggtctgc gctcccacag 60
gctcgccctt gcgccccgc cgattcgcgt cgccctttgt tggaaggaac gatggagcag 120
accttcatca tgatcaagcc cgacggcgtc cagcggggcc tgatcgggga catcatcagt 180
cgcttcgaga agaaaggggt ctacctcaag ggtaagtgcg tttcattttg ttctcgaatt 240
gattgctgga acacgtactc tgtttaaatt tcctagctat acgcatgaac ttctctgctg 300
ttgaggcaag atttgatgtg cagattctgg tgatatctta gaattgttta atctatgtat 360
acgttcgggt gcgtgtgatc accatctgaa aaaggatggt ggtcgtggaa gcaggaatat 420
tgctgggaga ttagatttga ttgaaaacca ttatcttgat gtca 464

<210> 1251
<211> 504
<212> nucleic acid
<213> Zea mays

<220>
 <221> unsure
 <222> (11), (32)
 <223> unsure at all n locations

<400> 1251

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 cgtccggagc tgtgtctctg tctgtctctg cctcgcaagg actcgtggta aaggatggag 120
 accatgtcgg ctctcgcgag gacggcgccg ccccttctgt ggaccattcg ccggccctca 180
 tgcgcgtga ggccgacggc gtccctctcc ttcgccgccc cttcaacgac gccccgcggc 240
 cggctcgggc tggggctgag cacggcgccc gcggggagcg ggagggcggc cagggtctgc 300
 gccgtcccgc ggcgcatcgt cgctctctcg gaggttgagc aaagctacat tatgatcaaa 360
 ccagatggtg ttcagcgtgg tctggttgga gagattatct ctcgctttga gaagaaaggg 420
 tttttgttga aaggcttaaa acttttccag tgccccaagg acttggcgca ggagcattac 480
 aaggatttga agggataaac tttc 504

<210> 1252
 <211> 233
 <212> nucleic acid
 <213> Zea mays

<400> 1252

gtttttgcag ttagtagaat atgttagtgg ctctatgat aggggtggaag gatttgagtt 60
 attgaatgag gcaatctctg agtatgagac ttcagaaaac aatgactcgg gaagctaccg 120
 cagattatct tatttggcat tgctccatc agtctacca tcagtatgcg agatgataag 180
 atcatattgc atgagtccat cttcacacac cggttggaag aggggttattg ttg 233

<210> 1253
 <211> 180
 <212> nucleic acid
 <213> Zea mays

<400> 1253

tcgttcggca gcagcaacga ggtgctggat gggacgccga cgggagatgg ggcaccgggg 60
 caggggcagc ggggagcgag caccgtcagc atcacggtcg tcggcgccctc cggcgacctc 120

<211> 299
 <212> nucleic acid
 <213> Zea mays

<400> 1257

gtcatttacc tgttgatgga gccataatga taacagcaag ccatctcccc tacaatcgga 60
 atgggtctcaa gttttttaca agtgatgggtg ggctaaataa agctgatatc aaagatatcc 120
 tggagcgtgc ttccaaaata tatgaggaat ctgcacataa taacctgaaa gaacagggggg 180
 aagcttcgaa gggagttgtc actaatgtgg actacatgtc aatttatgct tctgatcttg 240
 tacaagcagt tcgtaaattc gctggagaca aagaaaaacc attggaggaa ctgcatata 299

<210> 1258
 <211> 242
 <212> nucleic acid
 <213> Zea mays

<400> 1258

atctgggctg tgtctggcgt tgctttccat acttgcagac cggaacaagg ataaggatgt 60
 cggagagggga ttagtgtcag ttgaagatat tgctatggag cactggaaaa cctatggcag 120
 gaatttcttg tctagatacg attatgaggc gtgtgaatca cacagtgcaa accagatgat 180
 ggatcacggt agagatgtta tggcaaatac caagcctgga gagaaatacg gaaattacac 240
 cc 242

<210> 1259
 <211> 224
 <212> nucleic acid
 <213> Zea mays

<400> 1259

cggacgcgtg gcgagacgcg tgggcttgta caagcagttc gtaaactctgc tggagacaaa 60
 gaaaaacat tggaggaact gcatatagtc gttgatgcag ggaatgggtgc tgggtggtttt 120
 tttgtggata aggtactcaa accattagga gctgttacca ctggaagtca attccttgag 180
 cctgatgggtt tgtttcccaa tcacattccc aaccctgagg acaa 224

<210> 1260
 <211> 304
 <212> nucleic acid

<213> Zea mays

<400> 1260

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gggagcctta tcagggatct gcaggagccc gccgagtcg tgctcctccg gatggacatc 60
atgggtgagc ccaaggatgc caaggaaagg gccacacatg cagttgaggc ttttaagaac 120
tacatccagg aggacaaact tttcggttgg gtgctggacg actgcgggga ttgctcagtt 180
gccgagggat gccttatgga cacaacaat gatcccatcg atgttgatgc acacatgtac 240
agagcaaaac tatacgacga gaatcagaga gcagtaggca tggccacat tcgtcaaagc 300
gtgc 304

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<210> 1261

<211> 347

<212> nucleic acid

<213> Zea mays

<220>

<221> unsure

<222> (41), (144), (209)

<223> unsure at all n locations

<400> 1261

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cgtttcaaac gaggggtacaa gaatgtaata gacgaggcta ttcgtctgaa ctctattggt 120
gaggagtcac atttggccat gganacaagt gggcatggag cgctgaaaga gaaccactgg 180
cttgatgatg gagcatacct tatggtcana cttttgaata aacttgctgc tgctagaaca 240
ctgggttcaa gtattggtag taaagttttg actgatttgg ttgagggcct tgaagaagct 300
gatgtgacag ttgaaataag gttaaagatt gatcagaatc atgcaga 347

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<210> 1262

<211> 287

<212> nucleic acid

<213> Zea mays

<400> 1262

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gaattttgaa aaggtgacgg aaatagtgag gagcggagaa caccggaatg atccatcctc 60
tcgtgctatc cctgccctcc cccgtataa tatcgcgccc tcgtcgccat cgtcaccaca 120
ccaccactcc ctcaactgcc tctcaactcc gatccctgca ccaactaccgc ctctccgcy 180

```


ttgaacgcat gggtcctgga aagtcaccc taaatgttga gcctcctgaa tttggcgctg 120
cagctgatgg agatgctgac cgcaacatga ttcttggtaa aagattcttt gtgacaccgt 180
cggactctgt tgccattatc gcagccaatg ctgttcaatc aattccttac tttgcttctg 240
gcctgaaggg agttgccagg agcatgccaa catctgctgc tcttgatggt gttgcaaaga 300
atttgaacct taag 314

<210> 1266
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 1266

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tagtcaccc taaatgttga gcctcctgaa tttgggtgctg cagctgatgg agatgctgac 120
cgcaacatga ttcttggtaa aagattcttt gtgacaccgt cggactctgt tgccattatc 180
gcagccaatg ctgttcaatc aattccttac tttgcttctg gcctgaaggg agttgccagg 240
agcatgccaa catctgctgc ccttgatggt gttgcaaaga atttgaacct taagttcttt 300
gaggtgccta ctggatgg 318

<210> 1267
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 1267

gtcatccgga tctaacctc acctatgcaa aagagttggt tgaacggatg ggtccttgaa 60
agtcaccc taaatgttga cctcctgaat ttgggtgctgc agctgatgga gatgctgacc 120
gcaacatgat tctgggtaaa agattctttg tgacaccatc ggactctgtt gccattatag 180
cggccaatgc tgttcaatca attccttact ttgcttctgg cctgaagggg gttgccagga 240
gcatgccaac atcagctgcc cttgatgttg ttgcaaagaa tttgaatctc aagttctttg 300
aggg 304

<210> 1268
<211> 298

<212> nucleic acid
<213> Zea mays

<400> 1268

gagctgatgg caaacctagt aagcatgcag tcatcacttt ctgatgttaa caagttgatc 60
aaggagatcc ggtctgatgt ttctgaagta gttgcagctg acgagtttga gtacaaggat 120
ccagttgatg gctctgtgtc caagcaccag ggcacccgat acctcttcgg agatggttca 180
cgactgggtg tccgtctatc cggaaccggt tctgttggtg ccaccatccg tgtctacatc 240
gagcaatacg agaaggattc ctccaagacc ggcagggatt cacaggaggc ccttgctc 298

<210> 1269
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 1269

gagataagct tgtcactgtt gaagatattg tccgtcagca ctgggccaca tatggtcgcc 60
attactacac acgctatgac tatgagaatg ttgatgcagg ggctgctaag gagcttatgg 120
caaacctagt aagcatgcag tcatcacttt ctgatgttaa caagttgggtc aaggagatcc 180
ggtctgatgt ttctgaagta gttgcagctg acgagtttga gtacaaggat cctgttgatg 240
gctctgtgtc caagcaccag ggcacccgat acctctttgg agatggttca cgac 294

<210> 1270
<211> 328
<212> nucleic acid
<213> Zea mays

<400> 1270

cggtctgagg gtcacccgga tcctaacctc acctatgcaa aagagttggt tgaacggatg 60
ggtcttgga agtcacctc aaatgttgaa cctcctgaat ttggtgctgc agctgatgga 120
gatgctgacc gcaacatgat tctgggtaaa agattctttg tgacaccatc ggactctgtt 180
gccattatag cggccaatgc tgttcaatca attccttact ttgcttctgg cctgaaggga 240
gttgccagga gcatgccaac atcagctgcc cttgatgttg ttgcaaagaa tttgaatctc 300
aagttctttg aggtgcctac tgggtgga 328

<210> 1271
 <211> 285
 <212> nucleic acid
 <213> Zea mays

<400> 1271

ataagcttgt cactgttgaa gatattgtcc gtcagcattg ggccacatat ggctgccatt 60
 attacacacg ctatgactat gagaatgtcg atgctggggc tgctaaggag ctgatggcaa 120
 acctagtaag catgcagtca tcactttctg atgttaacaa gttgatcaag gagatccggt 180
 ctgatgtttc tgaagtagtt gcagctgacg agtttgagta caaggatcca gttgatggct 240
 ctgtgtccaa gcaccagggc atccgatacc tcttcggaga tgggt 285

<210> 1272
 <211> 284
 <212> nucleic acid
 <213> Zea mays

<400> 1272

gttgcaaaga atttgaatct caagttcttt gaggtgccta ctgggtggaa attttttggg 60
 aatttgatgg atgctggaat gtgctcaatc tgtggtgaag aaagctttgg cactgggtct 120
 gaccacattc gtgagaaaga tggcatctgg gctgtgcttg catggctttc tattattgct 180
 ttcaagaata aggacaacct tggaggagat aagcttgtca ctgttgaaga tattgtccgt 240
 cagcattggg ccacatatgg tcgccattat tacacacgct atga 284

<210> 1273
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1273

agttttacatt ctgttatgat gcactccatg gtgttgcggg agcttatgcc aaacacatct 60
 ttgtggaaga gcttgggtgct gatgaaagct cactgttgaa ttgtgtcccg aaagaggact 120
 ttggaggtgg tcatccggat cctaacctta cctatgcaa agagttgggt gaacgcatgg 180
 gtcttgga aa gtcacctca aatgttgagc ctctgaatt tgggtgctgca gctgatggag 240
 atgctgaccg caacatgaat cttggtaaaa gattctt 277

<210> 1274
 <211> 291
 <212> nucleic acid
 <213> Zea mays

<400> 1274

cccacgcgct cgaatgtgct caatctgtgg tgaagaaagc tttggcactg ggtctgacca 60
 cattcgtgag aaggatggca tctgggctgt gcttgcattg ctttcaatta ttgctttcaa 120
 gaataaggac aaccttggag gagataagct tgtcactgtc gaagatattg tccgtcagca 180
 ctgggccaca tatggctgcc attactacac acgctatgac tatgagaatg ttgatgcagg 240
 ggctgctaag gagcttatgg caaacctagt aagcatgcag tcatcacttt c 291

<210> 1275
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 1275

cgatgctggg gctgctaagg agctgatggc aaacctagta agcatgcagt catcactttc 60
 tgatgttaac aagttgatca aggagatccg gtctgatgtt tctgaagtag ttgcagctga 120
 cgagtttgag tacaaggatc cagttgatgg ctctgtgtcc aagcaccagg gcatccgata 180
 cctcttcgga gatgggtcac gactgggtgt cctgtctatcc ggaaccgggt ctgttggtgc 240
 caccatccgt gtctacatcg agcaatacga gaagg 275

<210> 1276
 <211> 290
 <212> nucleic acid
 <213> Zea mays

<400> 1276

ctcggactct gttgccatta tagcggccaa tgctgttcaa tcagttcctt actttgcttc 60
 tggcctgaag ggagttgcca ggagcatgcc aacatcagct gcccttgatg ttgttgcgaa 120
 gaatgtgaat ctcaagttct ttgaggtgcc tactgggtgg aaattttttg ggaatttgat 180
 ggatgctgga atgtgctcag tctgtggtga agaaagcttt ggcaactgggt ctgaccacat 240
 tcgtgagaga gatggcatct gggctgtgct tgcattggctt tctattattg 290

<210> 1277
 <211> 275
 <212> nucleic acid
 <213> Zea mays

<400> 1277

cttcgaagca ataaaaaagc tactgacctc cccaaagttt acattctggt atgatgcgct 60
 ccatggtggt gctggagctt atgccaaaca catctttgtg gaagagcttg gtgctgatga 120
 aagctcactg ttgaattgtg tcccaaaaga ggactttgga ggtggtcac cggatcctaa 180
 cctcacctat gcaaaagagt tgggtgaacg gatgggtctt ggaaagtcac cctcaaattgt 240
 tgaacctcct gaatttggtg ctgcagctga tggag 275

<210> 1278
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1278

tctttggaga tggttcacga ctggtgttcc gcctctctgg aaccggttct gttggtgcca 60
 ccatccgtgt ctacatcgag cagtaacgaga gggactcctc taagaccggc agggattcac 120
 aggacgccct tgcctcgctg gttgatttgc gctcaagctc tccaagatgc aagagtacac 180
 tggacgctct gccccaccg tcatcacata aattttgaag agtgtttttag aatgagttga 240
 ggcgcttaca caaatttcat tccggcctct tgttccatag tttttc 286

<210> 1279
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 1279

ctttgtgaca ccgtcggact ctgttgccat tatcgcagcc aatgctgttc aatcaattcc 60
 ttactttgct tctggactga agggagttgc caggagcatg ccaacatctg ctgcccttga 120
 tgttgttgca aagaatttga accttaagtt ctttgaggtg cctactggat ggaagttttt 180
 tgggaatttg atggatgctg gaatgtgctc aatctgtggt gaagaaaagct ttggcactgg 240
 gtctgaccac attcgtgaga aggatggcat ctgggctgtg cttgcatggc tttcaattat 300
 tgctt 305

<210> 1280
 <211> 271
 <212> nucleic acid
 <213> Zea mays

 <400> 1280

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 aagattcttt gtgacaccgt cggactctgt tgccattatc gcagccaatg ctgttcaatc 120
 aattccttac tttgcttctg gcctgaaggg agttgccagg agcatgccaa catctgctgc 180
 ccttgatggt gttgcaaaga atttgaacct taagttcttt gaggtgccta ctggatggaa 240
 gttttttggg aatttgatgg atgctggaat g 271

<210> 1281
 <211> 290
 <212> nucleic acid
 <213> Zea mays

 <400> 1281

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 cacatatggt cgccattatt acacacgcta tgactatgag aatgtcgatg ctggggctgc 120
 taaggagctg ttggcaaccc tagtaagcat gcagtcacat ctttctgatg ttaacaagtt 180
 gatcaaggag atccggtctg atgtttctga agtagttgca gctgacgagt ttgagtacaa 240
 ggatccagtt gatggctctg tgtccaagca ccagggcatc cgatacctct 290

<210> 1282
 <211> 274
 <212> nucleic acid
 <213> Zea mays

 <400> 1282

 cgtcggactc tgttgccatt atcgcagcca atgctgtggg gatcaattcc ttactttgct 60
 tctggcctga agggagttgc caggagcatg ccaacatctg ctgctcttga tgttgttgca 120
 aagaatttga accttaagtt ctttgaggtg cctactggat ggaagttttt tgggaatttg 180
 atggatgctg gaatgtgctc aatctgtggt gaagaaagct ttggcactgg gtctgaccac 240
 attcgtgaga aggatggcat ctgggctgtg cttg 274

<210> 1283
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1283

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 gtggtcatcc ggatcctaac ctcacctatg caaaagagtt ggttgaacgg atgggtcttg 120
 gaaagtcata ctcaaatggt gaacctcctg aatttggtgc tgcagctgat ggagatgctg 180
 accgcaacat gattctgggt aaaagattct ttgtgacacc atcggactct gttgccatta 240
 tagcggccaa tgc 253

<210> 1284
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1284

gagattcttt gtgacaccgt cggactctgt tgccattatc gcagccaatg ctgttcaatc 60
 aattccttac tttgcttctg gcctgaaggg agttgccagg agcatgccaa catctgctgc 120
 tcttgatggt gttgcaaaga atttgaacct taagttcttt gaggtgccta ctggatggaa 180
 gttttttggg aatttgatgg atgctggaat gtgctcaatc tgtggtcgaa gaaagctttg 240
 gtactgggtc tga 253

<210> 1285
 <211> 249
 <212> nucleic acid
 <213> Zea mays

<400> 1285

gcagtcata ctttctgatg ttaacaagtt ggtcaaggag atccggtctg atgtttctga 60
 agtagttgca gctgacgagt ttgagtacaa ggatcctggt gatggctctg tgtccaagca 120
 ccagggcata cgatacctct ttggagatgg ttcacgactg gtgttccgcc tctctggaac 180
 cggttctggt ggtgccacca tccgtgtcta catcgagcag tacgagaggg actcctctaa 240
 gaccggcag 249

<210> 1286
 <211> 259
 <212> nucleic acid
 <213> Zea mays

<400> 1286

cgactggtgt tccccctctc tggaaccggt tctggtggtg ccaccatccg tgtctacatc 60
 gagcagtacg agaggggactc ctctaagacc ggcagggatt cacaggacgc ccttgctccg 120
 ctggttgatg ttgcgctcaa gctctccaag atgcaagagt aactggacg ctctgcccc 180
 accgtcatca cataaatttt gaagagtgtt ttagaatgag ttgaggcgct tacacaaact 240
 ttcattccgg cctcttggt 259

<210> 1287
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 1287

ctttgaggtg cctactggat ggaagttttt tgggaatttg atggatgctg gaatgtgctc 60
 aatctgtggt gaagaaagct ttggcactgg gtctgaccac attcgtgaga aggatggcat 120
 ctgggctgtg cttgcatggc tttcaattat tgctttcaag aataaggaca accttgaggg 180
 agataagctt gtcactgtcg aagatattgt ccgtcagcac tgggccacat atggtcgcca 240
 ttactaca 248

<210> 1288
 <211> 235
 <212> nucleic acid
 <213> Zea mays

<400> 1288

caaccttgga ggagataagc ttgtcactgt tgaagatatt gtccgtcagc actgggccac 60
 atatggtcgc cattactaca cacgctatga ctatgagaat gttgatgcag gggctgctaa 120
 ggagcttatg gcaaacctag taagcatgca gtcactcatt tctgatgtta acaagttggt 180
 caaggagatc cggctctgatg tttctgaagt agttgcagct gacgagtttg agtac 235

<210> 1289
 <211> 233
 <212> nucleic acid
 <213> Zea mays

<400> 1289

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 cccttgatgt tgttgcaaag aatttgaacc ttaagttctt tgagggtgctt actggatgga 120
 agtttttttg gaatttgatg gatgctggaa tgtgctcaat ctgtggtgaa gaaagctttg 180
 gcactgggtc tgaccacatt cgtgagaagg atggcatctg ggctgtgctt gca 233

<210> 1290
 <211> 253
 <212> nucleic acid
 <213> Zea mays

<400> 1290

ggaggagata agcttgtcac tgtcgaagat attgtccgtc agcactgggc cacatatggt 60
 cgccattact acacacgcta tgactatgag aatgttgatg caggggctgc taaggagctt 120
 atggcaaacc tagtaagcat gcagtcacat ctttctgatg ttaacaagtt ggtcaaggag 180
 atccggtctg atgtttctga agtagttgca gctgacgagt ttgagtacaa ggatcctgtt 240
 gatggctctg tgt 253

<210> 1291
 <211> 231
 <212> nucleic acid
 <213> Zea mays

<400> 1291

gcacgagaaa gctttggcac tgggtctgac cacattcgtg agaaagatgg catctgggct 60
 gtgcttgcat ggctttctat tattgctttc aagaataagg acaaccttgg aggagataag 120
 cttgtcactg ttgaagatat tgtccgtcag cattgggcca catatggctg ccattattac 180
 acacgctatg actatgagaa tgtcgatgct ggggctgcta aggagctgat g 231

<210> 1292
 <211> 223
 <212> nucleic acid
 <213> Zea mays

<400> 1292

gtcatcactt tctgatgtta acaagttgat caaggagatc cggtctgatg tttctgaagt 60
agttgcagct gacgagtttg agtacaagga tccagttgat ggctctgtgt ccaagcacca 120
gggcatccga tacctcttcg gagatggttc acgactggtg ttccgtctat ccggaaccgg 180
ttctgttggt gccgacatcc gtgtctacat cgagcaatac gag 223

<210> 1293

<211> 232

<212> nucleic acid

<213> Zea mays

<400> 1293

cccacgcgtc cggttgaaga tattgtccgt cagcactggg ccacatatgg tcgccattac 60
tacacacgct atgactatga gaatgttgat gcaggggctg ctaaggagct tatggcaaac 120
ctagtaagca tgcagtcatc actttctgat gttaacaagt tggtaagga gatccggtct 180
gatgtttctg aagtagttgc agctgacgag tttagtaca aggatcctgt tg 232

<210> 1294

<211> 245

<212> nucleic acid

<213> Zea mays

<400> 1294

gagatccggt ctgatgtttc tgaagtagtt gcagctgacg agtttgagta caaggatcca 60
ctgatggct ctgtgtccaa gcaccagggc atccgatacc tottcggaga tggttcacga 120
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 180
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 240
cttatccgg aaccggttct gttggtgcca ccatccgtgt ctaattgggc 245

gtc cgccagcact gggccacata 60

cggtcgccac tactacacac gctaccgcca cgagaacgct gatgcacggg ctgctaagga 120
 ccttacgcgc aaacctagta accgtgcagt catcactttc tgatgctaac aagctgggtca 180
 aggagatccg gtctgatgtc ttctgaagta cctg 214

<210> 1296
 <211> 226
 <212> nucleic acid
 <213> Zea mays

<400> 1296

cccacgcgtc cgcccacgcg tccggaaggg agttgccagg agcatgccaa catctgctgc 60
 tcttgatgtt gttgcaaaga atttgaacct taagttcttt gaggtgccta ctggatggaa 120
 gttttttggg aatttgatgg atgctggaat gtgctcaatc tgtggtgaag agagcttttg 180
 cactgggtct gaccacattc gtgagaagga tggcatctgg gctgtg 226

<210> 1297
 <211> 199
 <212> nucleic acid
 <213> Zea mays

<400> 1297

ccttgaggga gataagcttg tcaactgtcg agatattgtc cgtcagcact gggccacata 60
 tggtcgccat tactacacac gctatgacta tgagaatgtt gatgcagggg ctgctaagga 120
 gcttatggca aacctagtaa gcatgcagtc atcactttct gatgttaaca agttgggtcaa 180
 ggagatccgg tctgatgtt 199

<210> 1298
 <211> 297
 <212> nucleic acid
 <213> Zea mays

<400> 1298

gttctagatc gcgatctgcc gccctttttt tttttttttt ttttgc tcaa aaaaaaccag 60
 aaacacttcc taacaagatt acaagaaaca cgctcccgat tacagcactg tcaatgtgac 120
 aagattatta ccgcatgctg tgccagcggc tcagtccgct gcaactgcagt acatggacaa 180
 aaaaaaaacg gggcgagtct gatacatata ttttattcat tggtgagatg caacaggaag 240

<400> 1301
 tgagcgccat tactacacac gctatgacta tgagatgttg atgcaggggc tgctaaggag 60
 cttatggcaa acctagtaag catgcagtca tcaactttctg atgttaacaa gttgttttnc 120
 ggagatcggg ctgatgtttc tgatgtagtt gcagctgacg agtttgagta caaggatcct 180
 gttgatggct ctgtgtccaa gcaccagggc atccgata 218

<210> 1302
 <211> 173
 <212> nucleic acid
 <213> Zea mays

<400> 1302
 actattattg ctttcaatca taaggacaaa cttggaagag ataagcttgt cactgttgaa 60
 gatattgtcc gtcagcattg ggcgacatat ggctgccatt attacacacg ctatgactat 120
 gagaatgtcg atgctggggc tgctaaggcg ctgatggcaa acctaataag cat 173

<210> 1303
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 1303
 ccctctccct tttttttttt tgagtaaatt attttttagta ctcagaaaaa aagataagca 60
 aatgctcaaa caaaaccaga aacacttcct aacaagatta caagacacac gctcccgatt 120
 acagcactgt cactgtgaca agattattac cgcagtctgt gccagcggct cagtccgctg 180
 cactgcagta catggacaaa aaaaaaacgg ggcgagtctg atacatacat tttattcatt 240
 ggtgagatgc aacaggaagt agaa 264

<210> 1304
 <211> 198
 <212> nucleic acid
 <213> Zea mays

<400> 1304
 gcacgaggtt gcatctcacc aatgaataaa atgtatgtat cagactcgcc ccgttttttt 60
 tttgtccatg tactgcagtg cagcggactg agccgctggc acagcatggc ggtaataatc 120

ttgtcacagt gacagtgctg taatcgggag cgtgtttctt gtaatcttgt taggaagtgt 180
 ttctggtttt gtttgagc 198

<210> 1305
 <211> 303
 <212> nucleic acid
 <213> Zea mays

<400> 1305

caaatgacca tctggaacac tgtttctgct aatgccagcc ttttcatctt ctgcttgtat 60
 gcagctgtcc ggtcttagat gcatttgaaa tttctctatg cactgaacac tacttatgtt 120
 attccattat tgtaataaca ggagcatgcc aacatctgct gctcttgatg ttgttgcaaa 180
 gaatttgaac cttaagttct ttgaggtgcc tactggatgg aagttttttt gggaatttga 240
 tggatgctgg aatgtgctca atctgtggtg aagaaagctt tggcactggg tctgaccaca 300
 ttc 303

<210> 1306
 <211> 122
 <212> nucleic acid
 <213> Zea mays

<400> 1306

ctttctgatg ttaacaagtt ggtcaaggag atccggtctg atgtttctga agtagttgca 60
 gctgacgagt ttgagtacaa ggatcctggt gatggctctg tgtccaagca ccagggcatc 120
 cg 122

<210> 1307
 <211> 118
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (12), (37)
 <223> unsure at all n locations

<400> 1307

cggctctgatg tntctgaagt agtgcagctg acgagtnntga gtacaaggat cctgttgatg 60

gctctgtgtc caagcaccag ggcattccgat acctcttttg agatgggttca cgactgggt 118

<210> 1308
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 1308

caaataacca tctggaacac tgtttctgct aatgccagcc ttttcatctt ctgcttggtat 60
gcagctgtcc ggtcttagat gcatttgaaa tttctctatg cactgaacac tacttatggt 120
attccattat tgtaataaca ggagcatgcc aacatctgct gctcttgatg ttgttgcaaa 180
gaatttgaac ctttaagttct ttgaggtgcc tactggatgg aagttttttt gggaatttga 240
tggatgctgg aatgtgctca atctgtggtg aagaaagctt tggcactggg t 291

<210> 1309
<211> 104
<212> nucleic acid
<213> Zea mays

<400> 1309

caactctaag accggcaggg attcacagga cgccttgca ccgcaggttg atgtagcgt 60
caagctcacc aagatgcaag agtacacagg acgctcagcc ccca 104

<210> 1310
<211> 321
<212> nucleic acid
<213> Zea mays

<400> 1310

tgtctctccg ccgggaacgc gtcagccgcc caggcgtca agatcagttc aatcccagacc 60
aagccagttg aggggcagaa gactgggact agtggcctga ggaaaaaggt gaaagtattc 120
cagcaggaga actaccttgc taattggatt caggctctat tcaattcctt gccccctgaa 180
gattatgtgg gtgcaaccct tgtacttggg ggtgatggcc ggtactttaa caaggaggct 240
gctcagatca tcattaagat tgcagctgga aatggagttc agaagatcat agttggcagg 300
aatggtctac tgtcaacacc t 321

<210> 1311

<211> 306
 <212> nucleic acid
 <213> Zea mays

<400> 1311

ccacgcgtcc gccacgcgtc cgcccacgcg tccgccacgc gtccgggacc tgggatattc 60
 cagcaggaga actaccttgc taattggatt caggtcttat tcaattcctt gccccctgaa 120
 gattatgtgg gtgcaacctt gtacttgggg gtgatggccg gtactttaac aaggaggctg 180
 ctcagatcat cattaagatt gcagctggaa atggagtcca gaagatcata gttggcagga 240
 atggtctact gtcaacacct gctgtatctg ctgtaattcg taaaagaaaa gccaatggcg 300
 gcttta 306

<210> 1312
 <211> 311
 <212> nucleic acid
 <213> Zea mays

<400> 1312

cttgtacttg ggggtgatgg ccggtacttt aacaaggagg ctgctcagat catcattaag 60
 attgcagctg gaaatggagt tcagaagatc atagttggca ggaatggtct actgtcaaca 120
 cctgctgtat ctgctgtaat tcgtaaaaga aaagccaatg gcggctttat catgagtcca 180
 agccataatc caggtggacc agacaatgac tggggatta agtttaacta cagcagtggg 240
 cagccagcac cggagacgat tactgatcaa atttatggaa acacactatc aatttctgaa 300
 ataaaaacag c 311

<210> 1313
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 1313

ttcagaagat catagttggc aggaatggtc tactgtcaac acctgctata tctgctgtaa 60
 ttcgtaaaag ataagccaat ggcggtttta tcatgagtgc aagccataat ccaggtggac 120
 cagacaatga ctgggggtatt aagtttaact acagcagtgg acagccagca ccggagacga 180
 ttactgatca aatttatgga aacacactat caatttctga aatacaaaca gcagacattc 240

ctgataactga tttgtcctct gttgg

265

<210> 1314
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 1314

cgatcatcaca taaatdddga agaacgtddd agaatgagtt gaggcgctta cacaaacttt 60
cattccggcc tcttgttcca tagtdtttdt tgcattgttac atctcaccga tgaataaaaat 120
gtatgtatca gacttgtctc gtdtdtdtdgc ccatccaagc agcaaattag ccgctggcac 180
agcatgcggt aataatcttg tcacagtgtc gtaattggga gcgttdtdtdt tgttagaagt 240
gttdtdtggtt tgttdgagca ttdgcgtatc gatttdtdtdt tctgaagagt ataaattatt 300
tt 302

<210> 1315
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 1315

tctcaactccc gtgtcgtgtc tagcgccgac gggtdtctac cggagccggc cagcggccac 60
gatgcctaca atgcacgcgc ttcgcctatg cccgctgtc tccaccatcc gatccacacc 120
accgcgggcc actgcgcgag cccgccaggc gcgtcttdtg tcgcccgtg ctctccgccc 180
gggacgcctg cagccgccc aagcgtcaag atcagttcaa tcccgaccaa gccagttgag 240
gggcagaaga ctgggactag tggcctgagg aaaaagggtga aagtattcca gcaggagaac 300

<210> 1316
<211> 356
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (82), (323)
<223> unsure at all n locations

<400> 1316

cgatccctgc accactaccg cctcctccgc ttcacccctc tcgtcgcctc ttgcggcgac 60

eggcggcgga tgcgtccggg cngcaacgca accatggggc tcttcaccgt gacgaagaag 120
 gccaccaccc ccttcgaagg ccagaagccc ggtacctccg gcctccgcaa gaagggttact 180
 gtattccagc agcctcatta tctgcagaac tttgtccagt caacattcaa tgcccttcct 240
 gcagaccaag taaaagggtgc aaccattggt gtctctgggt atggccgcta tttctcaaaa 300
 gatgctgttc agatcataac aanaatggct gctgccaatg gagtaagacg tgtttg 356

<210> 1317
 <211> 304
 <212> nucleic acid
 <213> Zea mays

<400> 1317
 ctgtcatccg tgaaagaatt ggtgcagatg gatcaaaggc tactgggtgcc ttcattctga 60
 cagcgagcca taaccaggt ggtcctacgg aggactttgg tatcaaatac aatatgggaa 120
 atggtggacc tgcccctgaa tccgttaccg acaagatddd ctctaataca acgacaatct 180
 ctgaatacct catctctgaa gaccttccag atgttgatat ttctgttggt ggtgtcacca 240
 gcttcagtgg acccgaagcc cctttgatgt ggatgtcttt gactctagt taaattacat 300
 aaag 304

<210> 1318
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 1318
 cccacgcgtc cgggtgatgg ccgctatttc tcaaaagatg ctgttcagat cataacaaaa 60
 atggctgctg ccaatggagt aagacgtgtt tgggttggtgac aaaacagtct catgtctact 120
 cctgctgtat ctgctgtcat ccgtgaaaga gttgggtgcag atggatcaaa ggctactggt 180
 gccttcatct tgacagcgag ccataaccca ggtgggtccta aggaggactt cgggatcaaa 240
 tacaacatgg gaaatgggtg gcctgctcct gaatctgtta ccgacaagat tttctctaata 300
 acaacga 307

<210> 1319
 <211> 292

<212> nucleic acid
<213> Zea mays

<400> 1319

aagcccggta cctccggcct ccgcaagaag gttactgtat tccagcagcc tcattatctg 60
cagaactttg tccagtcaac attcaatgcc cttcctgcag accaagtaaa aggtgcaacc 120
attgttgtct ctggtgatgg ccgctatttc tcaaaagatg ctgttcagat cataacaaaa 180
atggctgctg ccaatggagt aagacgtgtt tgggttggaac aaaacagtct catgtctact 240
cctgctgtat ctgctgtcat ccgtgaaaga attggtgcag atggatcaaa gg 292

<210> 1320
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 1320

gcagaacttt gtccaatcaa cattcaatgc cttcctgtg gatcaagtaa gacgtgcaac 60
aattgttgct tctggtgatg gccgctattt ctcaaaagat gctgttcaga tcataacaaa 120
aatggctgct gccaatggag taagacgtgt ttgggttgga caaaacagtc tcatgtctac 180
tctgctgta actgctgtca tccgtgaaag agttggtgca gatggatcaa aggctactgg 240
tgccttcac ttgacagcga gccataaccc aggtggtcct aaagaggact tcgg 294

<210> 1321
<211> 312
<212> nucleic acid
<213> Zea mays

<400> 1321

cctctcactc ccgatccctg caccactacc gcctcctccg cgtcacccct ctgctgcct 60
cttgcggcga ccggcggcgg atcgtccgca gcgcaagcgc aaccatgggg ctcttcaccg 120
tgacgaagaa ggccaccacc cccttcgaag gccagaagcc cggtagctcc ggctccgca 180
agaaggttac tgtattccag cagcctcatt atctgcagaa ctttgtccag tcaacattca 240
atgcccttcc tgcagaccaa gtaaaagggt caaccattgt tgtctctggt gatggccgct 300
atttctcaaa ag 312

<210> 1322
 <211> 284
 <212> nucleic acid
 <213> Zea mays

 <400> 1322

 gtgcagatgg atcaaaggct actggtgcct tcatcttgac agcgagccat aaccaggtg 60
 gtcctaagga ggacttcggg atcaaataca acatgggaaa tggtaggcct gtcctgaat 120
 ctgttaccga caagattttc tctaatacaa cgacaatctc tgaatacctc atctctgaag 180
 acctaccaga tgttgatatt tctgttgctg gtgtcaccag cttcagtga cccgaaggcc 240
 cctttgatgt ggatgttttt gactctagt tagattacat aaag 284

<210> 1323
 <211> 310
 <212> nucleic acid
 <213> Zea mays

 <400> 1323

 tatgcagatg gatcaaaggc tactggtgcc ttcattctga cagcgagcca taaccaggt 60
 ggtcctacgg aggacttttg tatcaaatac aatatgggaa atggtggacc tgcccctgaa 120
 tccgttaccg acaagatttt ctctaataca acgacaatct ctgaatacct catctctgaa 180
 gaccttcag atgttgatat ttctgttgct ggtgtcacca gcttcagtgg accgaaggc 240
 ccctttgatg tggatgtctt tgactctagt gtaaattaca taaagttaat gaagacaatt 300
 tttgacttcg 310

<210> 1324
 <211> 296
 <212> nucleic acid
 <213> Zea mays

 <400> 1324

 ccgatccctg caccactacc gctcctccg cttcaccct ctcgtgcct cttgcggcga 60
 ccggcggcgg atcgtccgca gcgcaacgca accatggggc tcttcaccgt gacgaagaag 120
 gccaccaccc ccttcgaagg ccagaagccc ggtacctccg gcctccgcaa gaaggttact 180
 gtattccagc agcctcatta tctgcagaac tttgtccagt caacattcaa tgcccttcct 240
 gcagaccaag taaaagggtg aactattgtt gtctctgggt atggccgcta tttctc 296

<210> 1325
 <211> 265
 <212> nucleic acid
 <213> Zea mays

<400> 1325

gaaatggtgg gcctgctcct gaatctgtta ccgacaagat tttctctaata acaacgacaa 60
 tctctgaata cctcatctct gaagacctac cagatgttga ttttctgtt gtcggtgtca 120
 ccagcttcag tggacctgaa ggcccccttg atgtggatgt ttttgactct agtgtagatt 180
 acataaagtt aatgaagtca atttttgact tcgaagcaat aaaaaagctg ctgacctccc 240
 caaagtttac attctgttat gatgc 265

<210> 1326
 <211> 281
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (273)
 <223>

<400> 1326

cctcaactgcc ctctcaactcc cgatccctgc accactaccg cctcctccgc gtcacccctc 60
 tcgtcgccctc ttgcggcgac cggcgggcgga tcgtccgcag cgcaagcgca accatggggc 120
 tcttcaccgt gacgaagaag gccaccaccc ctttcgaagg ccagaagccc ggtacctccg 180
 gcctccgcaa gaaggttact gtattccagc agcctcatta tctgcagaac tttgtccagt 240
 caacattcaa tgcccttcct gcagaccaag tanaagggtgc a 281

<210> 1327
 <211> 250
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (176)
 <223>

<400> 1327

gtcctaagga ggacttcggg atcaaataca acatgggaaa tgggtgggcct gtcctgaat 60
 ctgttaccga caagattttc tctaatacaa cgacaatctc tgaatacctc atctctgaag 120
 acctaccaga tgttgatatt tctgttgctg gtgtcaccag cttcagtgga cccganatcc 180
 cctttgatgt ggatgttttt gactctagtg tagattacat aaagttaatg aagacaattt 240
 ttgacttcga 250

<210> 1328
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 1328

gaaatggtgg gctgtctcct gaatctgtta ccgacaagat tttctctaata acaacgacaa 60
 tctctgaata cctcatctct gaagacctac cagatattga tatttctgtt gtcggtgtca 120
 ccagcttcag tggacctgaa ggcccccttg atgtggatgt ttttgactct agtgtagatt 180
 acataaagtt aatgaagtca atttttgact tcgaagcaat aaaaaagctg ctgacctccc 240
 caaagtttac attct 255

<210> 1329
 <211> 267
 <212> nucleic acid
 <213> Zea mays

<400> 1329

cccacgcgtc cgccactcct tccctgcct ctcactcccg atccctcctc caccaccgct 60
 tcttcgcgt caccctctc gtcgtgcct cagaggcga ccagcggcgg accctccgcg 120
 gcgcaaccat ggggctcttc actgtgacga agaaggccac cagcccttc gacggccaga 180
 agccccgcac ctccggcctc cgcaagaagg ttactgtatt ccagcagccc cattatctgc 240
 agaactttgt ccaatcaaca ttcaatg 267

<210> 1330
 <211> 308
 <212> nucleic acid
 <213> Zea mays

<400> 1330

cggaaccgtgg cggaatatgt gaggagcgga gaacaccgga atgatccatc ctcttggtgt 60
 ttccctgccc ttccccgcta taatatcgcg ccctcgtcag catcgtcacc acaccagcac 120
 tccctcactg ccctctcact cccgatccct gcaccactac cgctcctcc gcttcagccc 180
 tctcgtcgcc tcttgcgggcg accggcgggcg gatcgtcgc ggcgcaacgc aaccatgggg 240
 ctcttcaccg tgacgaagaa ggccaccacc cccttcgaag gccagaagcc cggtagctcc 300
 ggctccg 308

<210> 1331
 <211> 244
 <212> nucleic acid
 <213> Zea mays

<400> 1331
 gaaatggtgg gcctgtcct gaatctgtta ccgacaagat tttctctaata acaacgacaa 60
 tctctgaata cctcatctct gaagacctac cagatgttga ttttctgtt gtcggtgtca 120
 ccagcttcag tggacccgaa gcccctttga tgtggatgtt tttgactcta gtgtagatta 180
 cataaagtta atgaagacaa tttttgactt cgaagcaata aaaaagctgc tgacctcccc 240
 aaag 244

<210> 1332
 <211> 266
 <212> nucleic acid
 <213> Zea mays

<400> 1332
 ccactctctc gtgtatatcc tgcctcccc cgctataata tcgcgccctc gtcgccatcg 60
 tcaccacacc accactccct cactgccctc tcaactccga tccctgcacc actaccgect 120
 cctccgcgtc accctctctg tcgcctcttg cggcgaccgg cggcggtatcg tccgcggcgc 180
 aacgcaacca tggggctctt caccgtgacg aagaaggcca ccacccctt cgaaggccag 240
 aagcccggtg cctccggcct ccgcaa 266

<210> 1333
 <211> 221
 <212> nucleic acid
 <213> Zea mays

<210> 1340
 <211> 141
 <212> nucleic acid
 <213> Zea mays

<400> 1340

gcctccctgc cctctcactc ccgatccctc ctccaccgcc gcttcctccg cgtcaccctc 60
 ctcgtagtcg cctcacgagg cgaccagcgg cggaccctcc gcggcgcaac catggggctc 120
 ttcactgtga cgaagaaggc c 141

<210> 1341
 <211> 255
 <212> nucleic acid
 <213> Zea mays

<400> 1341

gcgagatcaa tgccaaccag tgggtgctctt gatcgtgttg ccgagaaatt gaatgttcca 60
 ttctttgagg ttccaacagg ctggaaaattt tttggcaacc taatggatgc aggaaaattg 120
 tctatttgtg gagaggaaaag ttttgggact ggatctgatc acatcagaga gaaggatggc 180
 atctgggctg ttctggcttg gctttccata cttgcacacc ggaacaagga taagaaggctc 240
 ggagagagat tagtg 255

<210> 1342
 <211> 273
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (2), (230), (260), (269)
 <223> unsure at all n locations

<400> 1342

gnatcgtgtt gccgagaaat tgaatgttcc attctttgag gttccaacag gctggaaatt 60
 tacctgcac cattaggttg ccaaaaaatt gtctatttgt ggagaggaaa gttttgggac 120
 tggatctgat cacatcagag agaaggatgg catctgggct gttctggctt ggctttccat 180
 acttgcacac cggaacaagg ataagaaggc cggagagaga ttagtgtcan ttgaggatat 240
 tgctatggag cactggaaan cctatggcng gat 273

<210> 1343
 <211> 268
 <212> nucleic acid
 <213> Zea mays

 <400> 1343

 ctcatctctg aagaccttcc agatgttgat atttctgttg tcggtgtcac cagcttcagt 60
 ggacccgaag gcccctttga tgtggatgtc tttgactcta gtgtaaatta cataaagtta 120
 atgaagacaa tttttgactt cgaagcaata aaaaagctac tgacctcccc aaagtttaca 180
 ttctgttatg atgcgctcca tgggtgttgct ggagcttatg ccaaacacat ctttgtggaa 240
 gagcttggtg ctgatgaaag ctcaactgt 268

<210> 1344
 <211> 236
 <212> nucleic acid
 <213> Zea mays

 <400> 1344

 catctctgaa gacctaccag atgttgatat ttctgttgtc ggtgtcacca gcttcagtgg 60
 acccgaagcc cctttgatgt ggatgttttt gactctagt tagattacat aaagttaatg 120
 aagacaattt ttgacttcga agcaataaaa aagctgctga cctccccaaa gtttacattc 180
 tgttatgatg cactccatgg tgttgcggga cttatgccat acacatcttt gtggaa 236

<210> 1345
 <211> 433
 <212> nucleic acid
 <213> Zea mays

 <400> 1345

 cccacgcgtc cgctgatacc gtactaccgt ctacaggatc agtatagctg aaggcatgag 60
 caaattggag ggtgtagacg gtagtacggt atcaaaacaa ggacttcgat ttgttttcac 120
 tgatggatct aggattatct tccggctttc gggaaccgga tctgctggag ctactatccg 180
 cctctacata gaacaatttg aatctgatat ctcgaagcat agtctcgatg ctcaaacagc 240
 tttgaagcct ttaatagacc tggttttgtc tgtttcgaag ctcaaggact tcacaggaag 300
 agagaaacct actgtcataa cataggccct gtttgtttcg gcttttggca gcttctggcc 360

<400>	1348
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<210>	1349
<211>	359
<212>	nucleic acid
<213>	Zea mays

<400>	1349
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ggcctgaagg	gagttgccag	gagcatgcct	tcatctgctg	cccttgatgt	tgttgcaaag	60
aatttgaacc	ttaagttcct	tgaggtgcct	actggatgga	agtttttttg	gaatttgatg	120
gatgctggaa	tgtgctcaat	ctgtggtgaa	gaaagctttg	gcactgggtc	tgaccacatt	180
cgtgagaagg	atggcatctg	ggctgtgctt	gcatggcttt	caattattgc	tttcaagaat	240
aaggacaacc	ttggaggaga	taagcttgtc	acttgtgaag	atattgtccg	tcagcactgg	300
gccacatatg	gtcgccatta	ctacacacgc	tatgaactatt	aaaatgttga	tgcacggggc	359

<210>	1350
<211>	421
<212>	nucleic acid
<213>	Zea mays

<400>	1350
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ctgaatttgg tgctgcagct gatggagatg ctgaccgcaa catgattctt ggtaaaagat 60
tctttgtgac accgtcggac tctgttgcca ttatcgcagc caatgctgtt caatcaattc 120
cttactttgc ttctggcctg aaggggagtgt ccaggagcat gccaacatct gctgcccttg 180
atgtttgttg aaagaatttg aaccttaagt tctttgaggt gcctactgga tqgaagtgtt 240

ttgggaattt gatggatgct ggaatgtgct caatctgtgg tgaagaaagc tttggcactg 300
 ggtctgacca cattcgtgag aaggatggca tctgggctgt gcttgcacgg ctttcaatta 360
 ttgctttcaa gaataaggac aaacttggag gagataagct tgtcactggt gaagatattg 420
 t 421

<210> 1351
 <211> 377
 <212> nucleic acid
 <213> Zea mays

<400> 1351

gggagttgcc aggagcatgc caacatctgc tgcccttgat gttgttgcaa agaatttgag 60
 ccttgagttc tttgaggtgc ctactggatg gaagcttttt gggaattgga tggatgctgg 120
 aatgtgctca atctgtggtg aagaaagctt tggcactgtg gctgaccaca ttcgtgagaa 180
 ggatggcatt tgggctgagc ttgcatggct atcaattatt gctttcaaga gtttggacag 240
 ccttgtagga gataagcttg tcatgatga agatatgtgt cgctagcact ggtccacata 300
 tggtcgctat ttctacactc gctatgacta tgagaatttt tatgcacggg ctgctaata 360
 gcttattgct tacctag 377

<210> 1352
 <211> 343
 <212> nucleic acid
 <213> Zea mays

<400> 1352

gactggtggt cgcctctctt gggaccggtt ctgttggtgc caccatccgt gtctacatcg 60
 agcagtaaga gagggactcc tctaagaccg gcagggattc acaggacgcc cttgctccgc 120
 tggttgatgt tgcgctcaag ctctccaaga tgcaagagta cactggacgc tctgccccca 180
 ccgtcatcac ataaattttg aagtgtttta gaatgagttg aggcgcttac acaaactttc 240
 attccggcct cttgttccat agtttttctt gcatgttaca tctcaccgat gaataaaatg 300
 tatgtatcag acttgtctcg ttaaaaaaaaa aaagaaataa aaa 343

<210> 1353
 <211> 293
 <212> nucleic acid

136

<400> 1356

<400> 1357

<400>	1358
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gcctcacaag	gcgaccagcg	ggcggaacct	ccgcggcgca	accatggggc	tcttcaactgt	120
gacgaagaag	gccaccacgc	ccttcgacgg	ccagaagccc	ggcacctccg	gcctccgcaa	180
gaagggttact	gtattccagc	agccccatta	tctgcagaac	tttgtccaat	caacattcaa	240
tgcccttctt	gtggatcaag	taagaggtgc	aacaattggt	gtctctggtg	atggccgcta	300

tttctcaaaa gatgctgttc agatcatcac aaaaatggct gctgccaatg 350

<210> 1359
 <211> 409
 <212> nucleic acid
 <213> Zea mays

<400> 1359

agccatcgcg tccgactcct tccctgccct ctcaactcaa atccctcctc caccaccgct 60
 tcctccgctg caccctcttc gtcgtcgct cagaggcga ccagcggcgg accctcgggg 120
 gcgcaaccat ggggctcttc actgtgacgg ggaaggccac cacgcccttc gacggccaga 180
 agcccggcac ctccggcctc cgcaagaagg ttactgtatt ccagcatccc cattatctgc 240
 agaactttgt ccaatcaaca ttcaatgccc ttctgtgga tcaagtaaga ggtgcaacaa 300
 ttgttgcttc tgggtgatttt ttctatttct caaaagatgc tggtcagatc ataacaaaaa 360
 tggtgctgc caatggagta acacgtgttt gggttggaca aaacaatct 409

<210> 1360
 <211> 396
 <212> nucleic acid
 <213> Zea mays

<220>
 <221> unsure
 <222> (344), (351)
 <223> unsure at all n locations

<400> 1360

cccacgcgtc cgccacgcg tccgggaaat cactccagaa ttttgaaaag gtgacggaaa 60
 tagtgaggag cggagaacac cggaatgatc catcctctcg tgctatccct gccctcccc 120
 gctataatat cgcgccctcg tcgccatcgt caccacacca ccactccctc actgccctct 180
 cactcccgat cctgcacca ctaccgcctc ctccgcgtca cccctctcgt cgcctcttgc 240
 ggcgaccggc ggcggatcgt ccgctgcgca agcgcaacca tggggctctt caccgtgacg 300
 aagaaggcca tcacccctt cgaaagccag aagcccggta cctnctgcct ncgcaagaag 360
 gttactgtat tccagcagcc tcattatctg cagaac 396

<210> 1361

<211> 138
<212> nucleic acid
<213> Zea mays

<400> 1361

caacactaac aacttgtggg tgaaccttaa agctgtcaag agactagtag agctgagcac 60
ttaagatgga attatcaacc cagaagtgat gggaatctca cttgactgat ggacattcgt 120
cttcaacgtg atagtccg 138

<210> 1362
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 1362

cgttcaagaa ggttgggagc ttccttggtc gtttcaagtc catacctagc attgttgagc 60
ttgacatctt gaagggttcc ggtgatgttt ggttcggttc tggaattgta ctgaagggga 120
aagtgaccat cactgcaaaa cctggcgtca agctagaaat cccagacgga gcagtgattg 180
ggaataagga taatttttga aaaggaaaaga gaaaacaata ccagatgcct tacaacctga 240
attagggatg aaactgctaa ttgc 264

<210> 1363
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 1363

gtcttagggtt attatagaag ttaaaatggtt attccaatga ggcaatgact actcacaatg 60
gaatatcacc ttgcttggtg gattattttac ggtgaagact tttagatata gtttgaactg 120
tacctcattt atagcgtatt tacataaatg tgatacccat ctgattgttg tgatttttga 180
tgtgtaaggt atcctcctgg tcatggtgat gtgtttcctt ctttgaataa cagcggaaaa 240
cttgacatct tattggctca gggcaaggag tatgtctttg ttgcaaactc agaca 295

<210> 1364
<211> 275
<212> nucleic acid
<213> Zea mays

ctccaacatt gcaattcata ctttcaatca gagccagtat cctcgcatg ttaccgagga 60
 cttcttgcca cttccaagca aaggacatc ttggaaggat ggctggatc ctccaggcca 120
 tggatgatg tttccctctt tgaataacag tggaaaactc gacatcttat tggctcaggg 180
 caaggagtat gtcttcgttg ctaactagac aa 212

<210> 1368
 <211> 274
 <212> nucleic acid
 <213> Zea mays

<400> 1368

cccgcggtca gacgcgcac ttcagcaat ggcgagcag aagctgcca ctgcgcgaag 60
 caccgcggc ctcacgcaga tcagcgataa cgagaagtcc ggcttctca gcctcgtcgg 120
 ccgtacctc agcggcgacg aggagcacat cgagtgggcc aagatccaca cgcccaccga 180
 cgaggtggtg gtgcgtagc acacctgga gtccccgcca gaaggcactg aggcgaccaa 240
 gaagctgctc gacaagctcg ccgtgctcaa gctc 274

<210> 1369
 <211> 248
 <212> nucleic acid
 <213> Zea mays

<400> 1369

ctctcccaga tccgtctccc gggtcagac ggcacatctc cagcaatggc ggacgagaag 60
 cttgccaagc tgcgcgaacc accgcggcc tcacgcagat cagcgagaac gagaagtccg 120
 gcttctcag cctcgtcggc cgatacctca gtggcgacga ggagcacatc gagtgggcca 180
 agatccacac gccaccgac gaggtggtgg tgccgtacga caccctggag tccccgccag 240
 aaggcact 248

<210> 1370
 <211> 186
 <212> nucleic acid
 <213> Zea mays

<400> 1370

ctccccggt cagacgcga tctccagcaa tggcgagca gaaacttgcc aagctgcgcg 60

ggaccagttc tttgaccatg ccattggtat caacgttcca aggtcccgt tccctaccagt 60
taaggcgaca tcagatttgc agctagtaca gtctgatcta tataccttgg ttgatggctt 120
cgttacacgt aattcagcca gaacaaatcc atcaaatccc tcaattgaac ttggtcctga 180
gttcaagaag gttgggagct tccttggctg cttcaagtcc atacctagca ttgttgagct 240
tgacatcttg aaggtttccg gtgatgtttg gttcggttct ggaattgtac tgaaggggaa 300
a 301

<210> 1374
<211> 349
<212> nucleic acid
<213> Zea mays

<400> 1374

agagccagta tcctcgcat gttaccgagg acttcttgcc acttccaagc aaagggaaat 60
ctggttaagga tggttggtat cctccaggcc atggtgatgt gttccctctt ttgaataaca 120
gtggaaaact cgacatctta ttggtcaag gcaaggagta tgtcttcatt gctaactcag 180
acaacttggg tgctatagtc gacatcaaga tcctgaacca tctgatcaat aaccagaatg 240
aatactgcat ggaggttact ccaaaaacat tggtgatgt taaaggcggt actctcatct 300
cttacgaagg aagagttcag cttttggaga ttgcccaagt acctgatga 349

<210> 1375
<211> 357
<212> nucleic acid
<213> Zea mays

<400> 1375

agttgatggt gtgaaagtcc ttcaactcga aaccgcagct ggtgcagcta ttcggttctt 60
cgacaaagcg attggaatta atgttccccg ctcaagggtt ctcccagtga aggctacatc 120
tgatctgttg cttgtgcagt ctgatcttta caccttgggt gatggctttg tcatccgcaa 180
cccatccaga gogaatccag ctaacccttc aattgagctt ggacctgagt tcaagaaggt 240
tgccaatttc cttgtctggt tcaagtccat cccagcata gttgagcttg acagcttgaa 300
ggtttctggt gatgtctggt ttggtctggt aattacactc aagggaaggt tgacaat 357

<210> 1376

<211> 314
 <212> nucleic acid
 <213> Zea mays

 <400> 1376

 gcgagaacga gaagtcggg ttcacagcc tcgtgtcac gtacctcagt ggggacgctg 60
 acagatcgag tggagcaaga tccagacccc tacggatgag gtggtggtgc cctacgatac 120
 cgtcgcgtcg cctcccgaag atctcgagga gacgaagaag ctgctggata agctcgttgt 180
 gctcaagctt aacggagggc tcgggacgac catgggctgc actgggccc aagtctgcat 240
 tgaagtcgc aatgggttca cattccttga cttattgtg attcaaattg agtccctgaa 300
 caagaagtat ggat 314

<210> 1377
 <211> 309
 <212> nucleic acid
 <213> Zea mays

 <400> 1377

 ctacgatacc gtcgcgtcg cctcccgaaga tctcgaggag acgaagaagc tgctggataa 60
 gctcgttgtg ctcaagctta acggagggct cgggacgacc atgggctgca ctgggccc aa 120
 gtctgtcatt gaagtcgca atgggttcac attccttgac cttattgtga ttcaaattga 180
 gtccctgaac aagaagtatg gatgcaatgt ccttttactt ctgatgaact ctttcaacac 240
 ccatgatgac acacagaaga ttgttgagaa gtattccaac tccaacatcg aaattcatac 300
 tttcaatca 309

<210> 1378
 <211> 302
 <212> nucleic acid
 <213> Zea mays

 <400> 1378

 gttgagaagt attccaactc caacattgaa attcatactt tcaatcagag ccagtatcct 60
 cgcattgtta ccgaggactt cttgccactt ccaagcaaag ggaaatctgg gaaggatggc 120
 tggatctctc caggccatgg tgatgtgttc cctctttga ataacagtgg aaaactcgac 180
 atcttattgg ctcagggcaa ggagtatgtc ttcgttgcta actcagacaa cttgggtgct 240

atagtcgaca tcaagatcct gaaccatctg atcaataacc agaatgaata ctgcatggag 300
gt 302

<210> 1379
<211> 319
<212> nucleic acid
<213> Zea mays

<400> 1379

ccacgcgtcc gggagcagat cgagtggagc aagatccaga cccctacgga tgaggtgggtg 60
gtgccctacg ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg 120
gataagctcg ttgtgtcaa gcttaacgga gggctcggga cgaccatggg ctgcactggg 180
cccaagtctg tcattgaagt ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa 240
attgagtccc tgaacaagaa gtatggatgc aatgtccctt tactttctgat gaactctttc 300
aacacccatg atgacacac 319

<210> 1380
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 1380

cccacgcgtc cgatcttatt ggctcagggc aaagagtatg tctttgttgc aaactcagac 60
aacttgggtg ctatagtcga catcaagatc ctaaaccatc tgatcaataa ccagaacgag 120
tactgcatgg aggttactcc aaagacgctg gctgacgtta aggggtggcac tctcatctct 180
tacgaaggaa gagttcagct tttggagatt gccaagtac ccgatgagca tgtgaatgaa 240
tttaaataca tcgagaagtt taagatatcc aacactaaca acttgtgggt gaaccttaaa 300
gctatcaaga gactcgtaga gg 322

<210> 1381
<211> 328
<212> nucleic acid
<213> Zea mays

<400> 1381

ggttaagata ttcaacacta acaacttgtg ggtgaacctt aaagctgtca agagactagt 60

agaggctgag gcacttaaga tggaaattat tccaaacccc aaggaagttg atggtgtgaa 120
 agtccttcaa tttgaaactg cagctggtgc agctattcgt ttctttgaca aagcgattgg 180
 aattaatgtt ccccgc tcaa gatttctccc agtgaaggct acatctgatt tattgcttgt 240
 gcagtctgat ctttacacct tggtcgatgg ctttgtcatc cgcaacccat ccagaacgaa 300
 tccagetaat ccttcgattg agcttgga 328

<210> 1382
 <211> 286
 <212> nucleic acid
 <213> Zea mays

<400> 1382

aattaatgtt ccccgc tcaa ggttctccc agtgaaggct acatctgac tgttcttgt 60
 gcagtctgat ctttacacct tggttgatgg ctttgtcatc cgcaacccat ccagagcgaa 120
 tccagetaac ccttcaattg agcttgacc tgagttcaag aaggttgcca atttccttgc 180
 tcggttcaag tccatcccca gcatagttga gcttgacagc ttgaaggttt ctggtgatgt 240
 ctggtttggc totggaatta cactcaaggg caaggtgaca attatc 286

<210> 1383
 <211> 302
 <212> nucleic acid
 <213> Zea mays

<400> 1383

caagagactc gtagagctga ggcacttaag atggaaatta ttccaaaccc caaggaagtt 60
 gatggtgtga aagtccttca actcgaaacc gcagctggtg cagctattcg gttcttcgac 120
 aaagcgattg gaattaatgt tcccgc tca aggttctcc cagtgaaggc tacatctgat 180
 ctgttgcttg tgcagtctga tctttacacc ttggttgatg gctttgtcat ccgcaaccca 240
 tccagagcga atccagetaa cccttcaatt gagcttgac ctgagttcaa gaaggttgcc 300
 aa 302

<210> 1384
 <211> 305
 <212> nucleic acid
 <213> Zea mays

<400> 1384

gcactctcat ctcttacgaa ggaagagttc agcttttggg gattgccccaa gtacccgatg 60

agcatgtgaa tgaatttaaa tcaatcgaga agtttaagat attcaacact aacaacttgt 120

gggtgaacct taaagctatc aagagactcg tagaggctga ggcacttaag atggaaatta 180

ttccaaaccc caaggaagtt gatggtgtga aagtccttca actcgaaacc gcagctggtg 240

cagctattcg gttcttcgac aaagcgattg gaattaatgt tccccgctca aggtttctcc 300

cagtg 305

<210> 1385

<211> 321

<212> nucleic acid

<213> Zea mays

<400> 1385

cggacgcgtg gggacgagaa gctcgataag cttcgcgccg aggtcgccaa gctcgaccag 60

atcagcgaga acgagaagtc cgggttcacg agcctcgtgt cacggtacct cagtcgggag 120

gcggacagat cgagtggagc aagatccaga cccctacgga tgagggtggtg gtgccctacg 180

ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg gataagctcg 240

ttgtgctcaa gcttaacgga gggctcggga cgaccatggg ctgcactggg cccaagtctg 300

tcattgaagt ccgcaatggg t 321

<210> 1386

<211> 307

<212> nucleic acid

<213> Zea mays

<400> 1386

ctcgagccgc tctgcagtcc ctgaacaaga agtatggatg caatgtccct ttactttctga 60

tgaactcttt caacacccat gatgacacac agaagattgt tgagaagtat tccaactcca 120

acatcgaaat tcatactttc aatcagagcc agtatcctcg cattgttacc gaggacttct 180

tgccacttcc cagcaaaggg aaatctggga aggatggctg gtatcctcct ggtcatggtg 240

atgtgtttcc ttctttgaat aacagcggaa aacgtgacat cttattggct cagggcaagg 300

agtatgt 307

<210> 1387
 <211> 276
 <212> nucleic acid
 <213> Zea mays

 <400> 1387

 cggagggctc gggacgacca tgggctgcac tgggcccaag tctgtcattg aagtccgcaa 60
 tgggtacaca ttcccttgacc ttattgtgat tcaaattgag tccctgaaca agaagtatgg 120
 atgcaatgtc cctttacttc tgatgaactc tttcaacacc catgatgaca cacagaagat 180
 tgttgagaag tattccaact ccaacatcga aattcatact ttcatttcag agccagtatc 240
 ctcgcattgt taccgaggac ttcttgccac ttccca 276

<210> 1388
 <211> 298
 <212> nucleic acid
 <213> Zea mays

 <400> 1388

 tgtcccttta cttctgatga actctttcaa caccatgat gacacacaga agattgttga 60
 gaagtattcc aactccaaca tcgaaattca tactttcaat cagagccagt atcctcgcac 120
 tgttaccgag gacttcttgc cacttcccag caaagggaaa tctgggaagg atggctggta 180
 tctcctgggt catggtgatg tgtttccttc tttgaataac agcggaaaac ttgacatctt 240
 attggctcag ggcaaggagt atgtctttgt tgcaaactca gacaacttgg gtgctata 298

<210> 1389
 <211> 287
 <212> nucleic acid
 <213> Zea mays

 <400> 1389

 attgttgaga agtattccaa ctccaacatc gaaattcata ctttcaatca gagccagtat 60
 cctcgcattg ttaccgagga cttcttgcca cttcccagca aagggaaatc tgggaaggat 120
 ggctgggtatc ctcttggtca tgggtgatgtg tttccttctt tgaataacag cggaaaactt 180
 gacatcttat tggctcaggg caaggagtat gtctttgttg caaactcaga caacttgggt 240
 gctatagtcg acatcaagat cctaaaccat ctgatcaata accagaa 287

<210> 1390
 <211> 291
 <212> nucleic acid
 <213> Zea mays

 <400> 1390

 ggaggttact ccaaaaacat tggctgatgt taaaggcggg actctcatct cttacgaagg 60
 aagagttcag cttttggaga ttgccaagt acctgatgag catgtgaatg agtttaaadc 120
 aatcgagaag ttttaagatat tcaacactaa caacttgtgg gtgaacctta aagctgtcaa 180
 gagactagta gaggctgagg cacttaagat ggaaattatt ccaaacccca aggaagttga 240
 tgggtgtgaaa gtccttcaac ttgaaactgc agctggtgca gctattcggt t 291

<210> 1391
 <211> 271
 <212> nucleic acid
 <213> Zea mays

 <400> 1391

 gcttaacgga gggctcggga cgaccatggg ctgcactggg cccaagtctg tcattgaagt 60
 ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa attgagtccc tgaacaagaa 120
 gtatggatgc aatgtccctt tactttctgat gaactctttc aacacccatg atgacacaca 180
 gaagattggt gagaagtatt ccaactccaa catcgaaatt catactttca atcagagcca 240
 gtatcctcgc attgtaaccg aggacttctt g 271

<210> 1392
 <211> 340
 <212> nucleic acid
 <213> Zea mays

 <400> 1392

 tgggttcaca ttccttgacc ttattgtgat tcaaattgag tccctgaaaa agaagtatgg 60
 atgcaatgtc gctttacttc tgatggacta tttcaacacc catgatgaca cacagaagat 120
 tgttgagaag tattccaact ccaacatcga aattcatact ttcaatcaga gccagtatcc 180
 tcgcattggt accgaggact tcttgccact tcccagcaaa gggaaatctg ggaaggatgg 240
 ctggtatcct cctgggtcatg gtgatgtgtt tccctctggt gaataacagc ggaaaacttg 300

acatcttatt ggctcagggc aaagagtatg tctttgttga 340

<210> 1393
 <211> 257
 <212> nucleic acid
 <213> Zea mays

<400> 1393

agctcgttgt gctcaagctt aacggagggc tcgggacgac catgggctgc actgggcccc 60
 agtctgtcat tgaagtccgc aatgggttca cattccttga ccttattgtg attcaaattg 120
 agtccctgaa caagaagtat ggatgcaatg tccctttact tctgatgaac tctttcaaca 180
 cccatgatga cacacagaag attgttgaga agtattccaa ctccaacatc gaaattcata 240
 ctttcaatca gagccag 257

<210> 1394
 <211> 269
 <212> nucleic acid
 <213> Zea mays

<400> 1394

caaattgagt ccctgaacaa gaagtatgga tgcaatgtcc ccttacttct gatgaactct 60
 ttcaacaccc atgatgacac acagaagatt gttgagaagt attccaactc caacatcgaa 120
 attcatactt tcaatcagag ccagtatcct cgcattgtta ccgaggactt cttgccactt 180
 cccagcaaag ggaaatctgg gaaggatggc tggatccctc ctgggtcatgg tgatgtgttt 240
 ccttctttga ataacagcgg aaaacttga 269

<210> 1395
 <211> 264
 <212> nucleic acid
 <213> Zea mays

<400> 1395

ctcgcattgt taccgaggac ttcttgccac ttccaagcaa agggaaatct gggaaggatg 60
 gctggtatcc tccaggccat ggtgatgtgt tcccctcttt gaataacagt ggaaaactcg 120
 acatcttatt ggctcagggc aaggagtatg tcttcgttgc taactcagac aacttgggtg 180
 ctatagtcga catcaagatc ctgaaccatc tgatcaataa ccagaatgaa tactgcatgg 240

aggttactcc aaaaacattg gctg

264

<210> 1396
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 1396

ggacgcgggc ttgtgcagtc tgatctttac accttggttg atggctttga gctccgcaac 60
ccatccagag cgaatccagc taacccttca attgagcttg gacctgagtt caagaagggt 120
gccaatttcc ttgctcgggt caagtccatc cccagcatag ttgagcttga cagcttgaag 180
gtttctggtg atgtctggtt tggctctgga attacactca agggcaagggt gacaattatc 240
gccaagcctg gagtgaagtt ggagattcca gatggagacg tacttgagaa caaggat 297

<210> 1397
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 1397

gaaagtcctt caactcgaaa ccgcagctgg tgcagctatt cggttcttcg acaaagcgat 60
tggaattaat gttccccgct caaggtttct cccagtgaag gctacatctg atctgttgct 120
tgtgcagtct gatctttaca ccttggttga tggctttgtc atccgcaacc catccagagc 180
gaatccagct aacccttcaa ttgagcttgg acctgagttc aagaagggtg ccaatttcct 240
tgctcgggtc aagtccatcc ccagcatagt tgagcttgac a 281

<210> 1398
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1398

ccagaatgaa tactgcatgg aggttactcc aaaaacattg gctgatgtta aaggcggtag 60
tctcatctct tacgaaggaa gagttcagct tttggagatt gccaagtac ctgatgagca 120
tgtgaatgag tttaaataca tcgagaagtt taagatattc aactactaaca acttgtgggt 180
gaaccttaaa gctgtcaaga gactagtaga ggctgaggca cttaagatgg aaattattcc 240

aaacccaag gaagttgatg gtg

263

<210> 1399
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 1399

cccacgcgtc cggcccaagt acccgatgag catgtgaatg aatttaaata aatcgagaag 60
tttaagatat tcaacactaa caacttgtgg gtgaacctta aagctatcaa gagactcgta 120
gaggctgagg cacttaagat ggaaattatt ccaaaccaca aggaagttga tgggtgtgaaa 180
gtccttcaac tcgaaaccgc agctgggtgca gctattcggg tcttcgacaa agcgattgga 240
attaatgttc cccgctcaag gtttctccca gtgaaggcta catctgat 288

<210> 1400
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1400

cccacgcgtc cgcaagaagt atggatgcaa tgtcccttta cttctgatga actctttcaa 60
cacccatgat gacacacaga agattgttga gaagtattcc aactccaaca tcgaaattca 120
tactttcaat cagagccagt atcctcgcat tgttaccgag gacttcttgc cacttcccag 180
caaagggaaa tctgggaagg atggctggta tcctcctggg catgggtgatg tgtttccctc 240
tttgaataac agcggaaaac ttgacatctt attggctc 278

<210> 1401
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1401

gcgagaacga gaagtccggg ttcacagcc tcgtgtcacg ctacctcagt ggggaagcgg 60
acagatcgag tggagcaaga tccagacccc tacggatgag gtgggtgggtgc cctacgatac 120
cgtcgcgtcg cctcccgaag atctcgagga gacgagaagc tgctggataa gctcgttgtg 180
ctcaagctta acggaggggt cgggacgacc atgggctgca ctgggcccac gtctgtcatt 240

gaagtcgcga atgggttcac attccttgat cttattgt

278

<210> 1402
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 1402

atctttacac cttggttgat ggctttgtca tccgcaatcc atccagagcg aatccagcta 60
acccttogat tgagcttgga cctgagttca agaagggtgc caatttcctt gtcggttca 120
agtccatccc cagcatcgtc gagcttgaca gcttgaaggt ttctggtgat gtctggtttg 180
gttctggaat tacgctcaag ggcaagggtga caatcaccgc caagtctgga gtgaagttgg 240
aggttccaga tggagctgta tatgaaaaca aggatgtcaa tg 282

<210> 1403
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1403

gtccttcaac tcgaaaccgc agctggtgca gctattcggt tcttcgacaa agcgattgga 60
attaatgttc cccgctcaag gtttctccca gtgaaggcta catctgatct gttgcttgtg 120
cagtctgata ttacacctt gggtgatggc tttgtcatcc gcaacccatc cagagcgaat 180
ccagctaacc cttcaattga gcttggacct gagttcaaga aggttgccaa tttccttgct 240
cggttcaagt ccatccccag catagttgag 270

<210> 1404
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1404

ggaggttact ccaaagacgc tggctgacgt taagggtggc actctcatct cttacgaagg 60
aagagttcag cttttggaga ttgccaagt acccgatgag catgtgaatg aatttaaata 120
aatcgagaag ttttaagatat tcaacactaa caacttgtgg gtgaacctta aagctatcaa 180
gagactcgta gaggctgagg cacttaagat ggaaattatt ccaaacccca aggaagttga 240

tggtgtgaaa gtccttcaac tcgaaaccgc

270

<210> 1405
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1405

tgatgacaca cagaagattg ttgagaagta ttccaactcc aacatcgaaa ttcatacttt 60
caatcagagc cagtatcctc gcattgttac cgaggacttc ttgccacttc ccagcaaagg 120
gaaatctggg aaggatggct ggtatcctcc tggatcatggg gatgtgtttc cttctttgaa 180
taacagcgga aaacttgaca tcttattggc tcagggcaag gagtatgtct ttgttgcaaa 240
ctcagacaac ttgggtgcta tag 263

<210> 1406
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 1406

gcaaggagta tgtctttggt gcaaactcag acaacttggg tgctatagtc gacatcaaga 60
tcctaaacca tctgatcaat aaccagaacg agtactgcat ggaggttact ccaaagacgc 120
tggtgacgt taagggtggc actctcatct cttacgaagg aagagttcag cttttggaga 180
ttgccaagt acccgatgag catgtgaatg aatttaaata aatcgagaag tttaagatat 240
tcaacactaa caacttgtgg gtg 263

<210> 1407
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 1407

aagaagtatt ccaactccaa catcgaaatt catactttca atcagagcca gtatcctcgc 60
attgttaccg aggacttctt gccacttccc agcaaaggga aatctgggaa ggatggctgg 120
tactctctg gtcattggtga tgtgtttccc tctttgaata acagcggaaa acttgacatc 180
ttattggctc agggcaaaga gtatgtcttt gttgcaaact cagacaactg ggggtgctata 240

gtcgacatca agatcctaaa ccatctgatac aat

273

<210> 1408
<211> 271
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (234)
<223>

<400> 1408

ccgcaatggg ttacattcc ttgaccttat tgtgattcaa attgagtccc tgaacaagaa 60
gtaggatgca agtcctttac ttctgatgaa ctctttcaac acccatgatg acacacagaa 120
gattgttgag aagtattcca actccaacat cgaaattcat actttcaatc agagccagta 180
tcctcgatt gttaccgagg acttcttgcc acttcccagc aaagggaaat ctgnggagga 240
tggttggtat cctcctgggc atggtgatgt g 271

<210> 1409
<211> 227
<212> nucleic acid
<213> Zea mays

<400> 1409

aagctatcaa gagactcgta gaggtgagg cacttaagat ggaaattatt ccaaacccca 60
aggaagttga tgggtgtgaaa gtccttcaac tcgaaaccgc agctggtgca gctattcggt 120
tcttcgacaa agcgattgga attaattgtc cccgctcaag gtttctccca gtgaaggcta 180
catctgatct gttgcttggt cagtctgatac ttacacctt ggttgat 227

<210> 1410
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 1410

aaaggcggta ctctcatctc ttacgaagga agagttcagc ttttggagat tgccaagta 60
cctgatgagc atgtgaatga gtttaaatca atcgagaagt ttaagatatt caacactaac 120
aacttgtggg tgaaccttaa agctgtcaag agactagtag aggctgaggc acttaagatg 180

gaaattattc caaaccccaa ggaagttgat ggtgtgaaag tccttcaact tgaaactgca 240
gctggtgcag ctattcggtt ctttgacaaa gcg 273

<210> 1411
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 1411

gcggacagat cgagtggagc aagatccaga cccctacgga tgaggtggtg gtgccctacg 60
ataccgtcgc gtcgcctccc gaagatctcg aggagacgaa gaagctgctg gataagctcg 120
ttgtgctcaa gcttaacgga gggctcggga cgaccatggg ctgcactggg cccaagtctg 180
tcattgaagt ccgcaatggg ttcacattcc ttgaccttat tgtgattcaa attgagtccc 240
tgaacaagaa gtatg 255

<210> 1412
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 1412

agggcaagga gtatgtcttt gttgcaaact cagacaactt ggggtgctata gtcgacatca 60
agatcctaaa ccatctgatc aataaccaga acgagtactg catggagggtt actccaaaga 120
cgctggctga cgtaagggt ggcactctca tctcttacga aggaagagtt cagcttttgg 180
agattgccca agtaccgat gagcatgtga atgaatttaa atcaatcgag aagttaaga 240
tattcaacac taacaactt 259

<210> 1413
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 1413

tcctcgcat gttaccgagg acttcttgcc acttcccagc aaagggaat ctgggaagga 60
tggtggtat cctcctggtc atggtgatgt gtttccctct ttgaataaca gcggaaaact 120
tgacatctta ttggctcagg gcaaagagta tgtctttggt gcaaactcag acaacttggg 180

tgctatagtc gacatcaaga tcctaaacca tctgatcaat aaccagaacg agtactgcat 240
ggaggttact ccaaagacgc tggt 265

<210> 1414
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 1414

caagtacccg atgagcatgt gaatgaattt aaatcaatcg agaagtttaa gatattcaac 60
actaacaact tgtgggtgaa ccttaaagct atcaagagac tcgtagaggc tgaggcactt 120
aagatggaaa ttattccaaa cccaaggaa gttgatgggtg tgaaagtcct tcaactcgaa 180
accgcagctg gtgcagctat tcggttcttc gacaaagcga ttggaattaa tgttccgcgc 240
tcaaggtttc tcccagtgaa ggctacatct gatctggt 278

<210> 1415
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1415

gggaaatctg ggaaggatgg ctggtatcct cctgggtcatg gtgatgtgtt tccttctttg 60
aataacagcg gaaaacttga catcttattg gctcagggca aggagtatgt ctttgttgca 120
aactcagaca acttgggtgc tatagtcgac atcaagatcc taaaccatct gatcaataac 180
cagaacgagt actgcatgga ggttactcca aagacgctgg ctgacgttaa ggggtggcact 240
ctcatctctt acgaaggaag agttcagct 269

<210> 1416
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 1416

aagctatcaa gagactcgta gaggetgagg cacttaagat ggaaattatt ccaaacccca 60
aggaagttga tgggtgtgaaa gtccttcaac tcgtaaccgc agctgggtgca gctattcggt 120
tcttcgacta agcgattgga ataattgtcc ccgcacatag aatctcccag tgaaggctac 180

atctgatctg ttgcttgtgc agtctgatct ttacaccttg gttgatggct ttgtcatccg 240
 caacccatcc agagcgaatc cagctaacct ttcaattgag cttggacctg agt 293

<210> 1417
 <211> 329
 <212> nucleic acid
 <213> Zea mays

<400> 1417
 ccgcaatcca tccagagcga atccagctaa cccttcgatt gagcttggac ctgagttcaa 60
 gaaggttgcc aatttccttg ctcggttcaa gtccatcccc agcatcgtcg agcttgacag 120
 cttgaagggtt tctggtgatg tctggtttgg ttctggaatt acgctcaagg gcaagggtgac 180
 aatcaccgcc aagtctggag tgaagttgga ggttccagat ggagctgtat ttgaaaacaa 240
 ggatgtcaat ggccctgagg atctttaagc tagcttgccg tcaccagttt ttcccaagga 300
 tttgtcaata ggagcagcca acccaaatac 329

<210> 1418
 <211> 262
 <212> nucleic acid
 <213> Zea mays

<400> 1418
 gtgaaagtcc ttcaacttga aactgcagct ggtgcagcta ttcgtttctt tgacaaagcg 60
 attggaatta atgttccccg ctcaagattt ctcccgggtga aggctacatc tgatttattg 120
 cttgtgcagt ctgatcttta caccttggtt gatggctttg tcatccgcaa tccatccaga 180
 gcgaatccag ctaacccttc gattgagctt ggacctgagt tcaagaaggt tgccaatttc 240
 cttgctcggg tcaagtccat cc 262

<210> 1419
 <211> 259
 <212> nucleic acid
 <213> Zea mays

<400> 1419
 gttaaggggtg gcactctcat ctcttacgaa ggaagagttc agcttttggg gattgcccac 60
 gtacccgatg agcatgtgaa tgaatttaaa tcaatcgaga agtttaagat attcaacact 120

aacaacttgt ggggtgaacct taaagctatc aagagactcg tagaggctga ggcacttaag 180
 atggaaatta ttccaaaccc caaggaagtt gatgggtgtga aagtccttca actcgaaacc 240
 gcagctgggtg cagctattc 259

<210> 1420
 <211> 252
 <212> nucleic acid
 <213> Zea mays

<400> 1420

ctttacacct tggttgatgg ctttgtcatc cgcaacccat ccagagcgaa tccagctaac 60
 ccttcaattg agcttggacc tgagttcaag aaggttgcca atttccttgc tcggttcaag 120
 tccatcccca gcatagttga gcttgacagc ttgaagggtt ctggtgatgt ctggtttggc 180
 tctggaatta cactcaaggg caaggtgaca attatcgcca agcctggagt gaagttggag 240
 attccagatg ga 252

<210> 1421
 <211> 302
 <212> nucleic acid
 <213> Zea mays

<400> 1421

cgtttcgaag cctcgcgagc cccgacgatg gccaccaccg cgggtgctggt cgacgagaag 60
 ctcgataagc ttcgcgccga ggctcgccaag ctcgaccaga tcagcgagaa cgagaagtcc 120
 gggttcatca gcctcgtgtc acggtacctc agtggggagg cgacagatc gagtggagca 180
 agatccagac ccctacggat gacgtggtgg tgccctacga taccgtcgcg tcgcctcccg 240
 aagatctcga ggagacgaag aagctgctgg ataagctcgt tgtgctcaag cttaacggag 300
 gg 302

<210> 1422
 <211> 249
 <212> nucleic acid
 <213> Zea mays

<400> 1422

cggtctgagt caaaggggtat ctgggctctg gttgaaagta tgaatttcga tgttggagtt 60

ggaataacttc tcaacaatct tctgtgtgtc atcatgggtg ttgaaagagt tcatcagaag 120
 taaagggaca ttgcatccat acttcttggt cagggactca atttgaatca caataaggtc 180
 aaggaatgtg aaccattgc ggacttcaat gacagacttg ggcccagtgc agcccatggt 240
 cgtcccagag 249

<210> 1423
 <211> 283
 <212> nucleic acid
 <213> Zea mays

<400> 1423

ccttaagata ttcaagacta acaacttggt ggtgaacctt aaagctatca agagactcgt 60
 agacgctgag gcacttaaga tggcgattat tccaaacccc aaggaagttg atgggtgtgaa 120
 agtccttcaa ctcgaaaccg cagctgggtgc agctattcgg ttcttcgaca aagcgattgg 180
 aattaatggt ccccgctcaa ggtttctccc agtgaaggct acatctgatc tgttgcttgt 240
 gcagtctgat ctttacagct tggttgatgg ctttgtcatc cgc 283

<210> 1424
 <211> 270
 <212> nucleic acid
 <213> Zea mays

<400> 1424

agcgaatcca gctaaccctt caattgagct tggacctgag ttcaagaagg ttgccaattt 60
 ccttgctcgg ttcaagtcca tccccagcat agttgagctt gacagcttga aggtttctgg 120
 tgatgtctgg tttggctctg gaattacact caagggcaag gtgacaatta tcgccaagcc 180
 tggagtgaag ttggagattc cagatggaga cgtacttgag aacaaggatg tcaatggccc 240
 tgaggatctt taagcaatgt ttgtcatcac 270

<210> 1425
 <211> 258
 <212> nucleic acid
 <213> Zea mays

<400> 1425

tggagattgc ccaagtacct gatgagcatg tgaatgagtt taaatcaatc gagaagttaa 60

agatattcaa cactaacaac ttgtgggtga accttaaagc tgtcaagaga ctagtagagg 120
 ctgaggcact taagatggaa attattccaa accccaagga agttgatggt gtgaaagtcc 180
 ttcaacttga aactgcagct ggtgcagcta ttcgtttctt tgacaaagcg attggagtta 240
 atgttccccg ctcaagat 258

<210> 1426
 <211> 307
 <212> nucleic acid
 <213> Zea mays

<400> 1426
 gcagcttaaa gctatcaaga gactcgtaga ggctgaggca cttaagatgg aaattattcc 60
 aaacccaag gaagttgatg gtgtgaaagt ccttcaactc gaaaccgcag ctggtgcagc 120
 tattcggttc ttcgacaaag cgattggaat taatgttccc cgctcaaggt ttctcccagt 180
 gaaggctaca tctgatctgt tgcttggtgca gtctgatctt tacaccttgg ttgatggctt 240
 tgtcatccgc aacccatcca gagcgaatcc agctaaccct tcaattgagc ttggagctga 300
 gttcaag 307

<210> 1427
 <211> 230
 <212> nucleic acid
 <213> Zea mays

<400> 1427
 ctacatctga tctgttgctt gtgcagtctg atctttacac cttggttgat ggctttgtca 60
 tccgcaaccc atccagagcg aatccagcta acccttcaat tgagcttgga cctgagttca 120
 agaaggttgc caatttcctt gctcggttca agtccatccc cagcatagtt gagcttgaca 180
 gcttgaaggt ttctgggtgat gtctgggttg gctctggaat tacactcaag 230

<210> 1428
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 1428
 ggcacttaag atggaaatta ttccaaaccc caaggaagtt gatgggtgta aagtccttca 60

actcgaaacc gcagctggtg cagctattcg gttcttcgac aaagcgattg gaattaatgt 120
 tccccgctca aggtttctcc cagtgaaggc tacatctgat ctggttgcttg tgcagtctga 180
 tctttacacc ttggttgatg gctttgtcat ccgcaaccca tccagagcga atccagctaa 240
 cccttcaatt gagcttggac ctgagttcaa g 271

<210> 1429
 <211> 243
 <212> nucleic acid
 <213> Zea mays

<400> 1429
 cccacgcgtc cgggtgttcc ttcggtgaat aacagcggaa aacttgacat cttattggct 60
 cagggcaagg agtatgtctt tgttgcaaac tcagacaact tgggtgctat agtcgacatc 120
 aagatcctaa accatctgat caataaccag aacgagtact gcatggagggt tactccaaag 180
 acgctggctg acgttaaggg tggcactctc atctcttacg aaggaagagt tcagcttttg 240
 gag 243

<210> 1430
 <211> 317
 <212> nucleic acid
 <213> Zea mays

<400> 1430
 ggcacacaca ccacaccaca cctcctcgct tccactccgc tcgtctgaca tctcgtcccg 60
 tcctttcggt tcgaagcctc gcgagccccg acgatggcca ccgccgcggt gtcggtcgac 120
 gagaagctcg acaagcttcg cgccgaggtc gccaaagctcg accagatcag cgagaacgag 180
 aagtccgggt tcatcagcct cgtgtcacgc tacctcagtg gggaagegga gcagatcgag 240
 tggagcaaga tccagacccc tacggatgag gtggtggtgc cctacgatac cgtcgcgctc 300
 cctcccgaag atctcga 317

<210> 1431
 <211> 242
 <212> nucleic acid
 <213> Zea mays

<400> 1431

cttcgacaaa gcgattggaa ttaatgttcc ccgctcaagg tttctcccag tgaaggctac 60
atctgatctg ttgcttgtgc agtctgatct ttacaccttg gttgatggct ttgtcatccg 120
caacccatcc agagcgaatc cagctaaccc ttcaattgag cttggacctg agttcaagaa 180
ggttgccaat ttccttgctc ggttcaagtc catccccagc atagttgagc ttgacagctt 240
ga 242

<210> 1432
<211> 214
<212> nucleic acid
<213> Zea mays

<400> 1432

aaggacttct tgccacttcc aagcaaaggg aaatctggga aggatggctg gtatcctcca 60
ggccatggtg atgtgttccc ctctttgaat aacagtggaa aactcgacat cttattggct 120
cagggcaagg agtatgtctt cgttgctaac tcagacaact tgggtgctat agtcgacatc 180
aagatcctga accatctgat caataaccag aatg 214

<210> 1433
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 1433

aggcagacgg cacacacacc acaccacacc tctctgcttc cactccgctc gtctgacatc 60
tcgtcccgtc cttctgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt 120
cggtcgacga gaagctcgac aagcttcgcg ccgaggtcgc caagctcgac cagatcagcg 180
agaacgagaa gtccgggttc atcagcctcg tgtcacgcta cctcagtggg gaagcggaca 240
gatcgagtgg agcaagatcc agaccctac ggatgaggtg gtggtgccct acgataccgt 300
cgcgtcgctt cccgaaga 318

<210> 1434
<211> 234
<212> nucleic acid
<213> Zea mays

<400> 1434

<400> 1443
gaacaagaag tatggatgca atgtcccttt acttctgatg aactctttca acacccatga 60
tgacacacag aagattgttg agaagtattc caactccaac atcgaatttc atactttcaa 120
tcagagccag tatectcgca ttgttaccga ggacttcttg ccacttccca gcaaagggaa 180
atctgggaag gatggctggt atc 203

<210> 1444
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 1444
gagttcaaga aggttgccaa tttccttggc cggttcaagt ccatccccag catagttgag 60
cttgacagct tgaaggtttc tggatgatgc tggtttggct ctggaattac actcaagggc 120
aaggtgacaa ttatcgccaa gcctggagtg aagttggaga ttccagatgg agacgtactt 180
gagaacaagg atgtcaatgg ccttgaggat ctttaagcaa tgtttatcat caccagtttt 240
cccaaggaca tgtcacagga actgccaagc ctaatcactc ctactga 287

<210> 1445
<211> 239
<212> nucleic acid
<213> Zea mays

<400> 1445
cccacgcgtc cgcccacgcg tccgacaact tgtgggtgaa ccttaaagct gtcaagagac 60
tagtagaggc tgaggcactt aagatggaaa ttattccaaa cccaaggaa gttgatggtg 120
tgaaagtcc tcaacttgaa actgcagctg gtgcagctat tcgtttcttt gacaaagcga 180
ttggaattaa tgttccccgc tcaagatttc tcccggtgaa ggctacatct gatttattg 239

<210> 1446
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 1446
cagcgcgcgt acgtgagcgc gcggttgggc tcgagcgacc ttagagctat caagagagtc 60

aatcaccgcc aagtctggag tgaagttgga gattccagac ggagctgtat ttgaaaacaa 180
 ggatgtcaat ggccctgagg atctttaagc tatgcttgcc gtcaccagtt tttcccaagg 240
 acatgtcaat aggagctgcc aacccaaatc actcccgtcg agctctacct ttt 293

<210> 1450
 <211> 311
 <212> nucleic acid
 <213> Zea mays

<400> 1450

caccacacct cctcgtttgc actccgctcg tctgacatct cgtcacgtcc tttcgtttcg 60
 aagcctcgcg agccccgacg atggccacca ccgcggtgtc ggtcgacgag aagctcgata 120
 agcttcgcg cagaggtcgcc aagctcgacc agatcagcga gaacgagaag tccgggttca 180
 tcagcctcgt gtcacggtac ctcaagtggg aggcggacag atcgagtgga gcaagatcca 240
 gaccctacg gatgaggtgg tggcgcccta cgataccgtc gcgtacgctc ccgaagatct 300
 cgaggagacg a 311

<210> 1451
 <211> 277
 <212> nucleic acid
 <213> Zea mays

<400> 1451

cacaccacac ctctcgttt gcactccgt cgtctgacat ctcgccccgt cctttcgttt 60
 cgaagcctcg cgagccccga cgatggccac caccgcggtg tcggtcgacg agaagctcga 120
 taagcttcgc gccgaggtcg ccaagctcga ccagatcagc gagaacgaga agtccgggtt 180
 catcagcctc gtgtcacggt acctcagtgg ggaggcggac agatcgagtg gagcaagatc 240
 cagacccta cggatgaggt ggtggtgccc tacgata 277

<210> 1452
 <211> 220
 <212> nucleic acid
 <213> Zea mays

<400> 1452

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gcctcgtgtc acggtacctc agtggggagg cggacagatc gaggggagca agatccagac 240
ccctacggat gacgtggtgg tgccctaaga taccgtcgcg tcgcctcccg aaga 294

<210> 1456
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 1456

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agcctcgcga gcaccgacga tagccaccgc cgcggtgtcg gtcgacgaga agctcgacaa 120
gcttcgcgcc gaggtcgcca agctcgacca gatcagcgag aacgagaaga ccgggttcat 180
cagcctcgtg tcacgttacc tcagtaggga agcggagcag atcgagtgga gcaagatcca 240
gacacctacg gatgaggtgg tgggtgcccta cgataccgtc gcgtcgctc ccgaagatct 300
cgaggag 307

<210> 1457
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 1457

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acgagaagct cgacaagctt cgcgccgagg tcgccaaact caaccagatc agcgagaacg 120
agaagtccgg gttcatcagc ctcgtgtcac gttacctcag tggggaggcg gacagatcga 180
gtggagcaag atccagaccc cgaccgatga ggtgggtggg ccgtacgata tcctcgcgtc 240
acctactgaa gatctcgagg agacgaagaa 270

<210> 1458
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 1458

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ggctcgcgaa ccccgacgat ggccgccacc gcggtgtcgg tcgacgagaa gtcgacaaag 120

ttcgaagcct cgcgagcccc gacgatggcc accaccgcgg tgcggtcga cgagaagctc 120
gataagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga gaagtccggg 180
ttcatcagcc tcgtgtcacg gtacctcagt ggggagggcg acagatcgag tggagcaaga 240
tccagacccc tacggatgag gtggtggtgc cctacgatac cgtcgcgtcg cctcccgaag 300
atctcgagga gacg 314

<210> 1462
<211> 238
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (193)
<223>

<400> 1462
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cgcaaccgcg gtgtcggtcg acgagaagct cgacaagctt cgcgccgagg tcgccaaact 120
cagccagatc agcgagaacg agaaggccgg gttcatcagc ctcgtgtcac gctacctcag 180
tggggagggcg ganagatcga gtggagcaag atccagaccc cgaccgatga ggtagtgg 238

<210> 1463
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 1463
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tcgtttcgaa gcctcgcgag caccgacgat ggccaccacc gcggtgtcgg tcgacgagaa 120
gctcgataag cttecgcccg aggtcgccaa gctcgaccag atcagcgaga acgacaactc 180
cgggttcacg agcctcgtgt caccgtacct cagtggggag gcggacagat cgagtggagc 240
aagatccaga cccctaagga tgaggtggtg gtgccctacg ataccgtcg 289

<210> 1464
<211> 299
<212> nucleic acid

<213> Zea mays

<400> 1464

gcagtctaac agcaccacct cctcgctcgc actccgttcg tctgaactct cctcccgctcc 60
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 aagctcgaca agcttcgcgc cgaggtcgcc aaactcagcc agatcagcga gaacgagaag 180
 gccgggttca tcagcctcgt gtcacgctac ctcaagtggg aggcggacag atcgagtggg 240
 gcaagatcca gaccccgacc gatgaggtag tggtgccgta cgataccctc acgtcgcct 299

<210> 1465

<211> 257

<212> nucleic acid

<213> Zea mays

<400> 1465

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 aggtcgcga accccgacga tggccgccac ccgcggtgtc gtcgacgaga agctcgacaa 120
 gcttcgcgc gaggtcgcca aactcaacca gatcagcgag aacgagaagt ccgggttcat 180
 cagcctcgtg tcacgttacc tcagtgggga ggccggacaga tcgagtggag caagatccag 240
 accccgaccg atgaggt 257

<210> 1466

<211> 188

<212> nucleic acid

<213> Zea mays

<400> 1466

ggaagttgat ggtgtgaaag tccttcaact cgaaaccgca gctggtgcag ctattcggtt 60
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 atctgatctg ttgcttgtgc agtctgatct ttacaccttg gttgatggct ttgtcatccg 180
 caacccat 188

<210> 1467

<211> 289

<212> nucleic acid

<213> Zea mays

<400> 1467

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cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180

gaagtccggg ttcattcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240

tggagcaaga tccagacccc tacggatgag gtggtggtgc ctacgatac 289

<210> 1468

<211> 275

<212> nucleic acid

<213> Zea mays

<400> 1468

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cccgtccttt cctttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgtcgg 120

cgacgagaag ctgcacaagc ttcgcgccga ggctgccaaag ctgcaccaga tcagcgagaa 180

cgagacgtcc ggggttcattca gcctcgtgtc ccgtacctc agtggggaag cggacagatc 240

gagtggagca agatccagac ccctacggat gaggt 275

<210> 1469

<211> 315

<212> nucleic acid

<213> Zea mays

<400> 1469

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ttcgaagcct cgcgagcacc gacgatagcc accaccgcgg tgcggtcga cgagaagctc 120

gataagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga gaagaccggg 180

ttcatcagcc tcgtgtcacg gtacctcagt acggaggcgg agcagatcga gtagagcaag 240

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gatctcgagg agacg 315

<210> 1470

<211> 250

<212> nucleic acid

<213> Zea mays

<400> 1470

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gtccttttcgt ttcgaagcct cgcgagcccc gacgatggcc accgccgcgg tgctcggtcga 120
cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180
gaagtccggg ttcattcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240
tggaagaagat 250

<210> 1471

<211> 255

<212> nucleic acid

<213> Zea mays

<400> 1471

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ctttcgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt cggtcgacga 120
gaagctcgac aagcttcgcg ccgaggtcgc caagctcgac cagatcagcg agaacgagaa 180
gtccgggttc atcagcctcg tgtcacgcta cctcagtggg gaagcggaca gatcgagtgg 240
agcaagatcc agacc 255

<210> 1472

<211> 276

<212> nucleic acid

<213> Zea mays

<400> 1472

atacggcaca cacaccacac cacacctcct cgcttccact ccgctcgtct gacatctcgt 60
cccgtccttt cgtttcgaag cctcgcgagc cccgacgatg gccaccgccg cggtgtcggt 120
cgacgagaag ctgcacaagc ttgcgcgccg ggctcgccaag ctgcaccaga tcagcgagaa 180
cgagaagtcc gggttcatca gcctcgtgtc acgtacctc agtggggaag cggacagatc 240
gagtggagca agatccagac ccctacggat gaggtg 276

<210> 1473

<211> 256

<212> nucleic acid

<213> Zea mays

<400> 1473

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 ggctcgcgaa ccccgacgat ggccgccacc gcggtgctcg tcgacgagaa gctcgacaag 120
 cttcgcgccg aggtcgccaa actcaaccag atcagcgaga acgagaagtc cgggttcac 180
 agcctcgtgt cacgttacct cagtggggag acggagcaga tcgagtgaga ccagatccag 240
 accccgacgg ataagg 256

<210> 1474

<211> 258

<212> nucleic acid

<213> Zea mays

<400> 1474

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 gacatcttat aggtcaggg caatgagtat gtctttgttg caaactcaga caacttgggt 120
 gctatagtcg acatcaagat cctaaaccat ctgatcaata accagaacga gtactgcatg 180
 gaggttactc caaagacgct ggctgacgtt aagggtggca ctctcatctc ttacgaagga 240
 agagttcagc ttttgag 258

<210> 1475

<211> 292

<212> nucleic acid

<213> Zea mays

<400> 1475

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 ctttcgtttc gaagcctcgc gagccccgac gatggccacc gccgcggtgt cggtcgacga 120
 gaagctcgac aagctcgcgc cgaggtcgcc aagctcgacc agagtagcga gaacgagaag 180
 tccgggttca tcagcctcgt gtcacgtac ctcagtgggg aagcggacag atcgagtgga 240
 gcaagatcca gaccctacgg atgaggtggt ggtgcctacg ataccgtcgc gt 292

<210> 1476

<211> 308

<212> nucleic acid

<400>	1476
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<210>	1477
<211>	189
<212>	nucleic acid
<213>	Zea mays

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agcttgaagg tttctggtga tgtctggttt ggttctggaa ttacgctcaa gggcaagggtg      60
acaatcaccg ccaagtctgg agtgaagttg gagattccag acggagctgt atttgaaaac      120
aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa      180
ggacatgtc                                     189

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<210>	1478
<211>	158
<212>	nucleic acid
<213>	Zea mays

tgaagtttaa	gatattcaac	actaacaact	tgtgggtgaa	ccttaaagct	gtcaagagac	60
tagtagaggc	tgaggcactt	aagatggaaa	ttattccaaa	ccccaggaa	gttgatggtg	120
tgaaagtccg	tcaacttgaa	actgcagctg	gtgcagct			158

<210>	1479
<211>	245
<212>	nucleic acid
<213>	Zea mays

<400>	1479
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cccacgcgtc cgccccacgcg tccgacacac cacaccacac ctccctcgctt ccaactccgct 60
 cgtctgacat ctcgctcccggt ccttttcgttt cgaagcctcg cgagccccga cgatggccac 120
 cgccgcggtg tcggtcgacg agaagctcga caagcttcgc gccgaggtcg ccaagctcga 180
 ccagatcagc gagaacgaga agtccggggtt catcagcctc gtgtcacgct acctcagtgg 240
 ggaag 245

<210> 1480
 <211> 271
 <212> nucleic acid
 <213> Zea mays

<400> 1480

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 acaatcaccg ccaagtctgg agtgaagttg gagattccag acggaactgt atttgaaaac 120
 aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa 180
 ggacatgtca ataggagctg ccaacccaaa tcaactccgc tgagctctac cttttgtaat 240
 tctcgtgccg ttccgcttcc gctgtgaggg t 271

<210> 1481
 <211> 247
 <212> nucleic acid
 <213> Zea mays

<400> 1481

cgcttgaagg tttctggtga tgtctggttt ggttctggaa ttacgctcaa gggcaagggtg 60
 acaatcaccg ccaagtctgg agtgaagttg gagattccag acggagctgt atttgaaaac 120
 aaggatgtca atggccctga ggatctttaa gctatgcttg ccgtcaccag tttttcccaa 180
 ggacatgtca ataggagctg ccaacccaaa tcaactccgc tgagctctac cttttgtaat 240
 tctcgtg 247

<210> 1482
 <211> 225
 <212> nucleic acid
 <213> Zea mays

<400> 1482

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acacaccaca ccacacctcc tcgcttccac tccgctcgtc tgacatctcg tcccgctcctt 60
 tcgtttcgaa gcctcgcgag ccccgacgat ggccaccgcc gcggtgtcgg tcgacgagaa 120
 gctcgacaag cttcgcgccg aggtcgccaa gctcgaccag atcagcgaga acgagaagtc 180
 cgggttcac cgcctcgtgt cagctacct cagtggggaa gcgga 225

<210> 1483
 <211> 256
 <212> nucleic acid
 <213> Zea mays

<400> 1483

cggcacacac accacaccac acctcctcgc ttccactccg ctcgctcgac atctcgctccc 60
 gtcctttcct ttctgaagcct cgcgagcccc gacgatggcc accgcgcggg tgctcggtcga 120
 cgagaagctc gacaagcacc cgcgcgaggtc gccaaagctcg accagatcag cgagaacgag 180
 aagtcggggt tcatcagcct cgtgtcacgc tacctcagtg gggaagcgga cagatcgagt 240
 ggagcaagat ccgacc 256

<210> 1484
 <211> 237
 <212> nucleic acid
 <213> Zea mays

<400> 1484

gcgggcagtc taacagcacc cctcctcgc tcgcaactccg ttctgtctgac atctcctccc 60
 gtcctttcct ttctgaggct cgcgaacccc gacaatggcc gcaaccgcgg tgctcggtcga 120
 cgagaagctc gacaagcttc gcgcgcgaggt cgccaaactc agccagatca gcgagaacga 180
 gaaggccggg ttcacagcc tcgtgtcacg ctacctcagt gggggagcgg gacagat 237

<210> 1485
 <211> 223
 <212> nucleic acid
 <213> Zea mays

<400> 1485

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cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg gttcatcagc 180
ctcgtgtcac ggtacctcag tggggaggcg gacagatcga gtg 223

<210> 1486
<211> 141
<212> nucleic acid
<213> Zea mays

<400> 1486

agctgaggca ctttaagatgg aaattattcc aaacccaagg aagttgatgg tgtgaaagtc 60
cttcaacttg aaactgcagc tgggtgcagct attcgtttct ttgacaaagc gattggaatt 120
aatgttcccc gctcaagatt t 141

<210> 1487
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 1487

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gtccttttcgt ttcgaagcct cgcgagcccc gacgatggcc accgccgcgg tgtcggtcga 120
cgagaagctc gacaagcttc gcgccgaggt cgccaagctc gaccagatca gcgagaacga 180
gaagtccggg ttcatcagcc tcgtgtcacg ctacctcagt ggggaagcgg acagatcgag 240
tggagcaaga tccagac 257

<210> 1488
<211> 143
<212> nucleic acid
<213> Zea mays

<400> 1488

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gcctggagtg aagttggaga ttccagatgg agacgtactt gagaacaagg atgtcaatgg 120
ccctgaggat cttaagcaa tgt 143

<210> 1489
<211> 200
<212> nucleic acid

<213> Zea mays
 <400> 1489
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 tcgaagcctc gcgagccccg acgatggcca ccgccgcggt gtcggtcgac gagaagctcg 120
 acaagcttcg cgccgaggtc gccaaagctcg accagatcag cgagaacgag aagtccgggt 180
 tcatacagct cgtgtcacgc 200

<210> 1490
 <211> 272
 <212> nucleic acid
 <213> Zea mays

<400> 1490
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 cccgtccttt cgtttcgaag cctcgcgagc ccgcacgatg gccaccgccg cggtgtcgat 120
 cgacgagaag ctcgacaagc ttgcgcgccg ggtcgccaag ctcgaccaga tcagcgagaa 180
 cgagaagtcc gggttcatca gcctcgtgtc acgtacctc agtggggaag cggacagatc 240
 gagtggagca agatccagac ccctacggat ga 272

<210> 1491
 <211> 149
 <212> nucleic acid
 <213> Zea mays

<400> 1491
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 gatcaataac cagaacgagt attgcatgga gggtactcca aagacgctgg ctgacgttaa 120
 ggggtggcact ctcactcttt acgaaggaa 149

<210> 1492
 <211> 189
 <212> nucleic acid
 <213> Zea mays

<400> 1492
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gtcgacgaga agctcgacaa gcttcgcgcc gaggtcgcca aactcagcca gatcagcgag 120
aacgagaagg ccgggttcat cagcctcgtg tcacgctacc tcagtgggga ggcggacaga 180
tcgagtga 189

<210> 1493
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 1493

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tttcgaagcc tcgcgagccc cgacgattgc caccaccgcg gtgtcggtcg acgagaagct 120
cgatgagctt cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg 180
gttcatcagc ctcgtgtcac ggtacctcag tggggaggcg gacagatcga gtggagcaag 240
atccagaccc ctacggatga ggtggtggtg cgctacgata ccgtcgcgtc gcctc 295

<210> 1494
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 1494

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gaagttggag attccagatg gagacgtact tgagaacaag gatgtcaatg gccctgagga 120
tctttaagca atgtttatca tcaccagttt tccaaggac atgtcacagg aactgccaaag 180
cctaatact cctactgagc tctatatattt gtaattttca tgtgcattcc gattccgctg 240
tgagggtcat gtg 253

<210> 1495
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 1495

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accacacctc ctcgcttcca ctcacgctcg totaccatct cgtcccgtcc tttcgtttcg 120

gatgtctggt ttggttctgg aattacgctc aagggcaagg tgacaatcac cgccaagtct 420
 ggagtgaagt tggaggttcc a 441

<210> 1508
 <211> 406
 <212> nucleic acid
 <213> Zea mays

<400> 1508

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 aaccttaaag ctatcaagag actcgtagag gctgaggcac ttaagatgga aattattcca 180
 aacccaagg aagttgatgg tgtgaaagtc cttcaactcg aaaccgcagc tgggtgcagct 240
 attcggttct tcgacaaagc gattggaatt aatgttcccc gctcaagggt tctcccagtg 300
 aaggctacat ctgatctggt gcttgtgcag tctgatcttt acaccttggg tgatggcttt 360
 gtcacccgca acccatccag agcgaatcca gctaaccctt caattg 406

<210> 1509
 <211> 412
 <212> nucleic acid
 <213> Zea mays

<400> 1509

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 acactaaciaa cttgtgggtg aaccttaaag ctatcaagag actcgtagag gctgaggcac 180
 ttaagatgga aattattcca aacccaagg aagttgatgg tgtgaaagtc cttcaactcg 240
 aaaccgcagc tgggtgcagct attcggttct tcgacaaagc gattggaatt aatgttcccc 300
 gctcaagggt tctcccagtg aaggctacat ctgatctggt gcttgtgcag tctgatcttt 360
 acaccttggg tgatggcttt gtcacccgca acccatccag agcgaatcca gc 412

<210> 1510
 <211> 436
 <212> nucleic acid
 <213> Zea mays

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gaggttactc caaaaacatt ggctgatgtt aaaggcggta ctctcatctc ttacgaagga 240
agagttcagc ttttggagat tgoccaaagta cctgatgagc atgtgaatga gtttaaataca 300
atcgagaagt ttaagatatt caacactaac aacttgtggg tgaaccttaa agctgtcaag 360
agactagtag aggctgaggc acttaagatg gaaattatct caaaccccaa ggaagttgat 420
ggtgtgaaag tccttcaact 440

<210> 1513
<211> 445
<212> nucleic acid
<213> Zea mays

<400> 1513
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tgttaccgag gacttcttgc cacttcccag caaagggaaa tctgggaagg atggctggta 120
tcctcctggg catgggtgat tggttccctc tttgaataac agcggaaaac ttgacatctt 180
attggctcag ggcaaggagt atgtctttgt tgcaaactca gacaacttgg gtgctatagt 240
cgacatcaag atcctaaacc atctgatcaa taaccagaac gactactgca tggagggttac 300
tccaaagacg ctggctgacg ttaaggggtg cactctcatc tcttacgaag gaagagttca 360
gcttttggag attgccaag tatccgatga gcatgtgaat gaatttaaata caatcgagaa 420
gtttaagata ttcaacacta acaac 445

<210> 1514
<211> 477
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (457)
<223>

<400> 1514
attcggttct tcgacaaagc gattggaatt aatgttcccc gctcaagggt tctcccagtg 60

gaggctacat ctgatctgtt gcttgtgcag tctgatcttt acaccttggt tgatggcttt 120
gtcatccgca acccatccag agcgaatcca gctaaccctt caattgagct tggacctgag 180
ttcaagaagg ttgccaattt ccttggtcgg ttcaagtcca tccccagcat agttgagctt 240
gacagcttga aggtttctgg tgatgtctgg tttggctctg gaattacact caagggcaag 300
gtgacaatta tcgccaagcc tggagtgaag ttggagattc cagatggaga cgtacttgag 360
aacaaggatg tcaatggccc tgaggatctt taagcaatgt ttatcatcac cagttttccc 420
aaggacatgt cacaggaact gccaaagccta atcactncta ctgagctcta tatttttg 477

<210> 1515
<211> 450
<212> nucleic acid
<213> Zea mays

<400> 1515
ggaaattatt ccaaacccca aggaagttgt tgggttgaaa gtccttcaac ttgaaactgc 60
agctgggtgca gctattcggt tctttgacaa agcgattgga attaatgttc cccgctcaag 120
atttctcccg gtgaaggcta catctgattt attgcttgtg cagtctgatc ttacacctt 180
ggttgatggc tttgtcatcc gcaatccatc cagagcgaat ccagctaacc cttcgattga 240
gcttggacct gagttcaaga aggttgccaa tttccttgct cggttcaagt ccatccccag 300
catcgtcgag cttgacagct tgaaggtttc tgggtgatgtc tggtttggtt ctggaattac 360
gctcaagggc aaggtgacaa tcaccgcca gtctggagtg aagttggagg ttccagatgg 420
agcttgattt gaaaacaagg atgtcaatgg 450

<210> 1516
<211> 438
<212> nucleic acid
<213> Zea mays

<400> 1516
cacacctcct cgcttccact ccgctcgtct gacatctcgt cccgtccttt cgtttcgaag 60
cctcgcgagc cccgacgatg gccaccgccg cgggtgtcggc cgacgagaag ctcgacaagc 120
ttcgcgccga ggctcgccaag ctcgaccaga tcagcgagaa cgagaagtcc gggttcatca 180
gcctcgtgtc acgctacctc agtgggggaag cggagcagat cgagtggagc aagatccaga 240

tgctggataa gctcgttgtg ctcaagctta acggagggct cgggacgacc atgggctgca 360
 ctgggcccac gtctgtcatt gaagtccgca atgggttcac attccttgac cttattgtga 420
 t 421

<210> 1519
 <211> 443
 <212> nucleic acid
 <213> Zea mays

<400> 1519

cccacgcgtc cgccacacca cacctcctcg cttccactcc gctcgtctga catctcgtcc 60
 ggtccttttcg tttcgaagcc tcgcgagccc cgacgatggc caccgccgcg gtgtcggtcg 120
 acgagaagct cgacaagctt cgcgccgagg tcgccaagct cgaccagatc agcgagaacg 180
 agaagtccgg gttcatcagc ctctgtgtcac gctacctcag tggggaagcg gagcagatcg 240
 agtggagcaa gatccagacc cctacggatg aggtgggtgg gcccctacgat accgtcgcgt 300
 cgccctccga agatctcgag gagacgaaga agctgctgga taagctcgtt gtgctcaagc 360
 ttaacggagg gctcgggacg accatggtct gcaactgggcc caagtctgtc attgaagtcc 420
 gcaatggggtt cacattcctt gac 443

<210> 1520
 <211> 319
 <212> nucleic acid
 <213> Zea mays

<400> 1520

atccttccgg taaacctcgc catctaattg gctcatggca tggagtatgt cttcgttgct 60
 aactcggaca gcttggttgc tatagtcgac atcaagatcc tgaaccatct gatcaataac 120
 cagaatgaat actgcatgga ggttactcca aaaacattgg ctgatgttaa aggcggtact 180
 ctcatctctt acgaaggaag agttcagctt ttggagattg cccaagtacc tgatgagcat 240
 gtgaatgagt ttaaataaat cgagaagttt aagatattca aactaaciaa cttgtgggtg 300
 aacctttaag ctgtcaaga 319

<210> 1521
 <211> 394

<212> nucleic acid
<213> Zea mays

<400> 1521

cccacgcgtc cgccccacgcg tccgcccacg cgtccgcgga cgcgtggggtt tcaatcagag 60
ccagtatcct cgcattgtta ccgaggactt cttgccactt cccagcaaag ggaaatctgg 120
gaaggatggc tggatatcctc ctgggtcatgg tgatgtgttt ccctctttga ataacagcgg 180
aaaacttgac atcttattgg ctcagggcaa agagtatgtc tttgttgcaa actcagacaa 240
cttgggtgct atagtcgaca tcaagatcct aaaccatctg atcaataacc agaacgagta 300
ctgcatggag gttactccaa agacgctggc tgacgttaag ggtggcactc tcatctctta 360
cgaaggaaga gttcagcttt tggagattgc ccaa 394

<210> 1522
<211> 400
<212> nucleic acid
<213> Zea mays

<400> 1522

cccacgcgtc cggcccaagt acctgatgag catgtgaatg agtttaaate aatcgagaag 60
tttaagatat tcaacactaa caacttgtgg gtgaacctta aagctgtcaa gagactagta 120
gaggctgagg cacttaagat ggaaattatt ccaaaccaca aggaagttga tgggtgtgaaa 180
gtccttcaac ttgaaactgc agctgggtgca gctattcggt tctttgacaa agcgattgga 240
attaatgttc cccgctcaag atttctcccg gtgaaggcta catctgattt attgcttgtg 300
cagtctgac tttacacctt ggttgatggc tttgtcatcc gcaatccatc cagagcgaat 360
ccagctaacc cttcgattga gcttggacct gagttcaaga 400

<210> 1523
<211> 419
<212> nucleic acid
<213> Zea mays

<400> 1523

cacctctctg cttgcactcc gctcgtctga catctcgtcc cgtcctttcg tttcgaaggg 60
tcgggagccc cgacgatggc caccaccgcg gtgtcggctg acgagaagct cgataagctt 120
cgcgccgagg tcgccaagct cgaccagatc agcgagaacg agaagtccgg gttcatcagc 180

ctcgtgtcac ggtacctcag tggggaggcg gagcagatcg agtggagcaa gatccagacc 240
cctacggatg aagtgggtgt gccctacgat accgtcgcgt cgcctccga agatctcgag 300
gagacgaaga agctgctgga taagctcggt gtgctcaagc ttaacggagg gctcgggacg 360
accatggggt gcaactgggcc caagtctgtc attgaagtcc gcaatgggtt cacattcct 419

<210> 1524
<211> 408
<212> nucleic acid
<213> Zea mays

<400> 1524

tgttacgcgt tcaaggcatc tcccagcgaa ggctacatct gatctgctgc ttgtgcaggc 60
tgatctttac accgtgggtg atggctttgt catccgcaac ccatgcagag cgaatccagc 120
taacccttca attgagcttg gacctgagtt caagaagggt gccaatctac ttggtcgggt 180
caagtccatc cccagcatag ttgagcttga cagcttgaag gtttctgggt atgtctgggt 240
tggtcttggga attacactca agggcaagggt gacaattatc gccaaacctg tagtgaagtt 300
ggagattcca gatggagacg tacttgagaa caaggatgtc aatggtcctg aggatctata 360
agcaatgggt atcatcacca ggttttccaa ggacatgtta cagggact 408

<210> 1525
<211> 358
<212> nucleic acid
<213> Zea mays

<400> 1525

ctcgcattgt taccgaggac ttcttgccac ttcccagcaa agggaaatct gggaaggatg 60
gctggtatcc tcttggatc ggtgatgtgt ttcttcttt gaataacagc ggaaaacttg 120
acatcttatt ggctcagggc aaggagtatg tctttgttgc aaactcagac aacttgggtg 180
ctatagtoga catcaagatc ctaaaccatc tgatcaataa ccagaacgag tactgcatgg 240
aggttactcc aaagacgctg gctgacgtta agggtgccac tctcatctct tacgaaggaa 300
gagttcagct tttggagatt gcccaaagtc cccgatgaag catgtgaatg gaattaa 358

<210> 1526
<211> 349

<212> nucleic acid
<213> Zea mays

<400> 1526

ccgtcctttc ctttctgagg ctgcggaacc ccgacaatgg ccgcaaccgc ggtgtctgtc 60
gacgagaagc tcgacaagct tcgcgccgag gtgcgcaaac tcagccagat cagcgagAAC 120
gagaaggccg ggttcatcag cctcgtgtca cgctacctca gtggggaggc ggagcagatc 180
gagtggagca agatccagac cccgaccgat gaggtagtgg tgccgtacga taccctcacg 240
tcgcctcctg aagatctcga ggagacgaag aagctgctgg acaagctcgt tgtgctcaag 300
ctcaacggag ggctcgggac gaccatgggc tgcaccggac ccaagtctg 349

<210> 1527
<211> 439
<212> nucleic acid
<213> Zea mays

<220>
<221> unsure
<222> (415)
<223>

<400> 1527

cccacgcgtc cgatgatctg gtgctcgtgc aggtgatctt ttacaccttg gatgatggct 60
ttgtcatccg caacccatcc agagcgaatc cagctaacc ttcaattgag cttggacctg 120
agttcaagaa ggttgccaat ttccttggtc ggttcaagtc catccccagc atagttaggc 180
ttgacagctt gaaggtttct ggtgatgtct ggtttggctc tggaattaca ctcaagggca 240
aggtgacaat tatcgtcaag cctggagtga agttggagat tccagatgga gacgtacttg 300
agaacaagga tgtcaatggc cctgaggatc tttaagcaat gtgtatcatc accagttgtc 360
ccaaggacat gtcacatgaa ctgtcaagcc taatcactcc tactgagctc tatantttgt 420
aatgttcatg tgcattccg 439

<210> 1528
<211> 373
<212> nucleic acid
<213> Zea mays

<400> 1528

aattaatggt ccccgctcaa gatttctccc ggtgaaggct acatctgatt tattgcttgt 60
gcagtctgat ctttacacct tggttgatgg ctttgtcatc cgcaatccat ccagagcgaa 120
tccagetaac ccttcgattg agcttggacc tgagttcaag aagggttgcca atttccttgc 180
tcggttcaag tccatcccca gcatcgtcga gcttgacagc ttgaagggtt ctggtgatgt 240
ctggttttgt tctggaatta cgctcaaggg caagggtgaca atcacctgca agtctggagt 300
gaagttggag gttccagatg gagctgtatt tgaaaacaag gatgtcaatg gccctgagga 360
tccttaagct atg 373

<210> 1529
<211> 392
<212> nucleic acid
<213> Zea mays

<400> 1529
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cttcccagca aagggaaatc tgggaaggat ggctggatc ctcctgggtca tggatgatgtg 120
tttccctctt tgaataacag cggaaaactt gacatcttat tggctcaggg caaagagtat 180
gtctttgttg caaactcaga caacttgggt gctatagtcg acatcaagat cctaaaccat 240
ctgatcaata accagaacga gtactgcatg gaagttactc caaagacgct ggctgacgtt 300
aaaggtggca ctctcatctc ttacgaaagg aagagttcag ctttttggag attgccaag 360
taccgatga gcatgtgaat gaatttaa at ca 392

<210> 1530
<211> 407
<212> nucleic acid
<213> Zea mays

<400> 1530
cacaccacac cacacctgct cgtttccact ccgctcgtct gacatctcgt cccgtcgttg 60
cgtttcgaag cctcgcgagc cccgacgatg gccaccgccg cgggtgctggt cgacgagaag 120
ctcgacaagc ttcgcgccga ggctcgccaag ctcgaccaga tcagcgagaa cgagaagtcc 180
gggttcatca gcctcgtgtc acgctacctc agtggggaag cggagcagat cgagtggagc 240
aagatccaga cccctacgga tgaggtggtg gtgccctacg ataccgtcgc gtagcctccc 300

gaagatctcg aggagacgaa gaagctgctg gataagctcg ttgtgctcaa gcttaacgga 360
 gggctcggga cgaccatggg ctgcactggg cccaagtatg tcattga 407

<210> 1531
 <211> 407
 <212> nucleic acid
 <213> Zea mays

<400> 1531

agcttttggga gattgcccac gtacccgatg agcatgtatg ttgctgtttc tgtgtggctt 60
 aagtttcata atctgttcca tgatttcacc accagccttt tgtagtaaga gctacacaac 120
 cttttctaata tttcttgtat ctctatccag gtgaatgaat ttaaataaat cgagaagt 180
 aagatattca acactaaca cttgtgggtg aaccttaaa ctatcaagag actcgtagag 240
 gctgaggcac ttaagatgga aattattcca aacccaagg aagttgatgg tgtgaaagtc 300
 cttcaactcg aaaccgcagc tgggtgcagct attcggttct tcgacaaaagc gattggaatt 360
 aatgttcccc gctcaaagtt tctcccagtg aaggctacat ctgatct 407

<210> 1532
 <211> 460
 <212> nucleic acid
 <213> Zea mays

<400> 1532

gtagctgcag tgcggctgta gatcacgggt ccacgcacgc gtccgaatgg cattgtcatc 60
 cgcaaccat ccagagcgaa tccagctaac ccttcaattg agcttggacc tgagttcaag 120
 aaggttgcca atttccttgc tcggttcaag tccatcccca gcatagttga gcttgacagc 180
 ttgaaggttt ctggtgatgt ctggtttggc tctggaatta cactcaaggg caatgtgaca 240
 attatcgcca agcctggagt gaagttggag attccagatg gagacgtact tgagaacaag 300
 gatgtcaatg ggctgagga tctttaagca atgtctgtca tcaccagttt tcccaagga 360
 catgtcacag gaactgccga gcctaatac tcctactgag ctctatattt ttgtaatttt 420
 catgtgcatt ccgattccgc tgcgagggtc atgtgagccc 460

<210> 1533
 <211> 257
 <212> nucleic acid

<213> Zea mays

<400> 1533

gtttaagata ttcaacacta acaacttggtg ggtgaacctt aaagctatca agagactcgt 60
agaggctgag gcacttaaga tggaaattat tccaaacccc aaggaagttg atggtgtgaa 120
agtccttcaa ctcgaaaccg cagctgggtgc agctattcgg ttcttcgaca aagcgattgg 180
aattaatggt ccccgctcaa ggtttctccc aatgaaggct acatctgatc tgatgcttgt 240
gcagtctgat ctttaca 257

<210> 1534

<211> 378

<212> nucleic acid

<213> Zea mays

<400> 1534

aaccacgcg tccgcccacg cgtccgcaca cacaccacac cacacctcct cgcttccact 60
ccgctcgtct gacatctcgt cccgtccttt cgtttcgaag cctcgcgagc cccgacgatg 120
gccaccgcg cgggtgctggt cgacgagaag ctcgacaagc ttcgcgccga ggtcgccaag 180
ctcgaccaga tcaggcgagt gccccctcc tctccgcaact agatctcgcc gcccgatcgc 240
ttcgctccc atttttgctg atttctgagt gtgtttttcc gcgcagcgag aacgagaagt 300
ccgggttcat cagcctcgtg tcacgctacc tcagtgggga agcggagcag atcgagtgga 360
gcaagatcca gacccta 378

<210> 1535

<211> 60

<212> nucleic acid

<213> Zea mays

<400> 1535

aatggaatta aagggtccccg gttaagaatt cttcccgtga atgcttcctt cgaattaatg 60

<210> 1536

<211> 342

<212> nucleic acid

<213> Zea mays

<400> 1536

609270 609270

aagaattaca ctcaagggca aggtgacaat tatcgccaag cctggagtga agttggagat 60
 tccagatgga gacgtacttg agaacaagga tgtcaatggc cctgaggatc ttttaagcaat 120
 gtttgtcatc accagttttt cccaaggaca tgtcacagga actgccaagc ctagtcactc 180
 ctactgagct ctatatatttg taattttcat gtgcattccg attccgctgt gagggtcatg 240
 ttaaccccg c tagaaaataa ttgtaatctt ctttgtgcg tctgtacttc tgtttttggt 300
 cgccaggacg tatattttta ctgaaatgat actccgaaga gc 342

<210> 1537
 <211> 443
 <212> nucleic acid
 <213> Zea mays

<400> 1537
 aggtgacaat tatcgccaag cctggagtga agttggagat tccagatgga 60
 gacgtacttg agaacaagga tgtcaatggc cctgaggatc ttttaagcaat gtttatcatc 120
 accagttttt ccaaggacat gtcacaggaa ctgccaagcc taatcactcc tactgagctc 180
 tatattttgt aattttcatg tgcattccga ttccgctgtg agggtcatgt gagcccgcta 240
 gagaataatt gtaatcttct ttgctgcgtc tgtacttctg tttttgtgcg ccaggacgta 300
 tatttttact gaaatgatac tccgtaatat attataatac ttgttttata ttatttttat 360
 tgtttttatt atattattat gtttttttta tgtttttata atttattttt tttttatatt 420
 atttttttat aattttttta ttt 443

<210> 1538
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 1538
 ggccgcacag cccgatgttg atggattttt gggttggtggg gccaatctt tgcagtttcc 60
 tccatttaca gaacctccat agataattct tacagatgca gcaactgcaa agaattggcc 120
 gcacagcccg atgttgatga tttttggttg gtggtgcctc cctgaagccg gagttcgtgg 180
 acatcataaa tgcctgccact gtgaagaaga attgaaattc gtagttagg 229

<210> 1539
 <211> 267

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (3) ... (4), (6), (14), (24), (53), (65) ... (66), (73), (75), (98),
(108), (113), (120), (125), (142), (150), (152), (174), (179),
(183), (189), (210), (224) ... (226), (230), (232), (235), (248),
(252), (255)
<223> unsure at all n locations
<400> 1539

ggntngagg ttgnacaagg gtanctctgt ctgcttctac aatttctctc gtnaccaata 60
gaaanncaaa acnanaacat gggcagaaaa ttcttcgncg gtggcaantg ganattgaan 120
gggancaatg aggaggtaaa gnagattgtg antactttga atgaggctaa agtngctgna 180
gangatgtng tagaagttgt tgtgagaccn ccttatgtgt tccnnncatn gnaanaagtt 240
tgctgcanct gnttnccatg tttcggc 267

<210> 1540
<211> 265
<212> nucleic acid
<213> Glycine max
<400> 1540

tgggaccaa gactccatca gaaagcttgt ctctgacttg aacagtgcaa cattggagtc 60
tgatgttgat gttgttgttg cacctccttt tgtgtacatc gatcagggtga aaaactcaat 120
tacagatagg attgaaattt ctgcccagaa ttcttgggtg ggaaaagggtg gggctttcac 180
gggagaaatc agtgtggagc aactaaaaga ccttggctgc aagtgggtta ttcttggaca 240
ttctgagcga agacatgtaa ttgga 265

<210> 1541
<211> 259
<212> nucleic acid
<213> Glycine max
<400> 1541

ggcaactgga agtgtaacgc aacaaaagac tcaatcagca agcttgttgc tgacttgaac 60
aatgcaaaat tggagcctga tgttgatgtt gtcgttgac ctccttcct ctacatcgat 120
caagtgaaaa actcactcac tgagcggctt gacatatctg cccagaattc ttgggttgga 180

aaaggtggtg cttttactgg agaaatcagc gcggaacaac taaacgatct tggatgcacg 240
 tgggttggtc ttggacatt 259

<210> 1542
 <211> 245
 <212> nucleic acid
 <213> Glycine max

<400> 1542

gcaacctcaa catccctctt ctcttcaa atctccattctc tcaactcaca gcctttctct 60
 tcttcaactct ccttcttccg aaatgtccat tccaccctct ctttcccttc ttctaaaccc 120
 tcccgtaggg ttgtagccat ggctggctct ggcaagttct ttgttggtgg caattggaag 180
 tgtaatggga ccaaagactc catcagaaag cttgtctctg acttgaacag tgcaacattg 240
 gagtc 245

<210> 1543
 <211> 283
 <212> nucleic acid
 <213> Glycine max

<400> 1543

agatgcacca ctctttcttc ttcaatcaat ggcagcaacc tcaacatccc tcttctcctc 60
 aaatctccat tctctcaact cacaaccttt ctcttctca ctctccttct tctgaaatgt 120
 ccattccacc ctctctttcc cttcttctaa accctcccggt ggcggtgtag ccattggctgg 180
 ctctggcaag ttctttgttg gtggcaattg gaagtgtaat gggaccaaag actccatcag 240
 aaagcttggtc tctgacttga acagtgcac attggagtct gat 283

<210> 1544
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1544

ctcgagccgc ttcaatcaat ggcagcaacc tcaacatccc tcttctcctc atatctccat 60
 tctctcaact cataaccttt ctcttctca ctctccttcc gaaatgtcca ttccactctc 120
 tctttccctt cttctaaacc ctctcgtggc gttgtagcca tggctggctc tggcaagttc 180

tttgatggtg gcaattggaa gtgtaatggt accaaagact ccatcagaca gcttgtctct 240
gttttgaac 249

<210> 1545
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (124), (129), (148) ... (149), (152), (157), (204)
<223> unsure at all n locations

<400> 1545

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cttnagccng tccattccac cctctctnnc anaacantct aaaccctccc gtggcggtgt 180
agccatggct ggctctggca agtnctttgt tgggtggcaat tggaagtgt atgggaccaa 240
agactccatc agaaagttgt ctctggattg aacaggca 278

<210> 1546
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 1546

attcaatcca agcttagatt gttttactgt tacaccattc ctaggtacca tttgcaccac 60
tctttcttct tcaatcaatg gcagcaacct caacatccct cttctcttca aatctccatt 120
ctctcaactc acaacctttc tcatcctcac tctccttctt ccgaaatgtc cattccaccc 180
tctctttccc ttcttataaa ccttcccgtg gcgttgtagc catggctggc tctggcaagt 240
tctttgttgg tggcaattgg aagtgtaa 268

<210> 1547
<211> 289
<212> nucleic acid
<213> Glycine max

<400> 1547

aaatttctgc ccagaattct tgggtgggaa aaggtggggc tttcacggga gaaatcagtg 60
 tggagcaact aaaagacctt ggctgcaagt gggttattct tggacattct gagcgaagac 120
 atgtaattgg agaaaatgat gagtttatag gaaagaaaac tgcctatgct ttgagtgagg 180
 gtcttgggtg gatagcatgt attggggaac ttctacaaga aagagaagct ggtcaaaactt 240
 tcgacatttg tttccagcaa ttgaaggctt ttgcagatgc agtgccaag 289

<210> 1548
 <211> 270
 <212> nucleic acid
 <213> Glycine max

<400> 1548

gaaatttctg cccagaattc ttgggtggga aaaggtgggg ctttcacggg agaaatcagt 60
 gtggagcaac taaaagacct tggctgcaag tgggttattc ttggacattc tgagcgaaga 120
 catgtaattg gagaaaatga tgagtttata gggaagaagg ctgtctatgc tttgagtgag 180
 ggtctagggtg tgatagcatg tattggggaa ctgttacaag aaagagaagc tgggaaaact 240
 ttcgatgttt gttttcagca attgaaggct 270

<210> 1549
 <211> 281
 <212> nucleic acid
 <213> Glycine max

<400> 1549

gtgaaaaact cactcactga gcggattgaa aatctgccca gaattcttgg gttggaaaag 60
 gtggtgctct tactggagaa atcagcgcgg aacaactaaa agatcttggga tgcaagtggg 120
 ttgttcttgg acattctgag cgaagacatg ttattggaga aaatgatgag tttatagggga 180
 cgaaagctgc ctatgctttg agccaagggtc ttgggggtgat tgcattgcatt ggagaattgt 240
 tagaagaaag ggaggctgga aaaacttttg atgtttgttt t 281

<210> 1550
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 1550

acggctgcga	gaagacgaca	gaaggggtgga	aaaggtggtg	cttttactgg	agaaatcagc	60
gcggaacaac	taaaagatct	tggatgcaag	tgggttggtc	ttggacattc	tgagcgaaga	120
catgttattg	gagaaaaatga	tgagtttata	gggaagaaag	ctgcctatgc	tttgagccaa	180
ggtcttgggg	tqattgcatg	cattggagaa	ttgttagaag	aca		223

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<210>      1551
<211>      170
<212>      nucleic acid
<213>      Glycine max
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```
<220>
<221>      unsure
<222>      (105),(125),(145)
<223>      unsure at all n locations
```

<400>	1551
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cactgagcgg attgaaatat ctgcccagaa ttcttggggtt ggaaaagggtg gtgctttttac 60
 tggagaaaatc agcgcggaac aactaaaaga tcttgggatgc aagtngggtt tcttgggaca 120
 ttctnagcga agacatgtta ttggngaaaa tgatgagttt ataggggaaga 170

<210>	1552
<211>	355
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (278)
<223>
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<400>	1552
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gtttcggcac	aaaactgttg	ggttcgcaaa	ggtggtgctt	ataccggtga	ggttagtgct	60
gtcatgcttg	ttaatttggg	aattccttgg	gttattattg	gtcactctga	acggaggcag	120
ctttttaaag	aatcaaacga	gtttgtggga	gataaagttg	cctatgcact	tcaacaagg	180
ctaaaagtta	ttgcatgcat	tggggagact	ctcgaacagc	gtgaagctgg	tacaacaacg	240
gctgttggtt	ctgagcaaac	aaaagcaatt	gcagctanaa	tatcaaattg	ggacaatggt	300
gtcttggcct	acgagccagt	ttggggcatt	ggaacaggaa	aggttgctac	tctctg	355

<210> 1553

1. The first part of the document is a list of references. The references are listed in two columns. The first column contains references 1 through 10, and the second column contains references 11 through 20. The references are as follows:

1. The first part of the document is a list of references.	11. The first part of the document is a list of references.
2. The first part of the document is a list of references.	12. The first part of the document is a list of references.
3. The first part of the document is a list of references.	13. The first part of the document is a list of references.
4. The first part of the document is a list of references.	14. The first part of the document is a list of references.
5. The first part of the document is a list of references.	15. The first part of the document is a list of references.
6. The first part of the document is a list of references.	16. The first part of the document is a list of references.
7. The first part of the document is a list of references.	17. The first part of the document is a list of references.
8. The first part of the document is a list of references.	18. The first part of the document is a list of references.
9. The first part of the document is a list of references.	19. The first part of the document is a list of references.
10. The first part of the document is a list of references.	20. The first part of the document is a list of references.

<400>	1553
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<210>	1554
<211>	268
<212>	nucleic acid
<213>	Glycine max

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gagactctcg	aacagcgtga	agctggtaca	acaacggctg	ttgtttctga	gcaaacaaaa	120
gcaattgcag	ctaaaatatc	aaattgggac	aatgtcgttt	tggcctacga	gccagtttgg	180
gccattggaa	caggaaaggt	tgctactcct	gtcaggctc	aagagggtcca	tgctgatttg	240
aggaaatggg	ttcatgacaa	tgtgagtg				268

<400>	1555
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546

264

<400>	1556
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<210>	1557
<211>	270
<212>	nucleic acid
<213>	Glycine max

<400> 1557

<210>	1558
<211>	264
<212>	nucleic acid
<213>	Glycine max

<400> 1558

cggagataaa	gttgcctatg	cacttcaaca	aggtctaaca	gttattgcat	gcattgggga	60
gactctcgaa	cagcgtgaag	ctggtacaac	aacggctggt	gtttctgagc	aaacaaaagc	120
aattgcagct	aaaatatcaa	attgggacaa	tgttgttttg	gcctacgagc	cagtttgggc	180
cattggcaca	ggaaagggtt	ctactcctgc	tcaggctcaa	gagggtccat	ctgatctgag	240

gaaatggggtt catgacaatg tgag

264

<210> 1559
 <211> 258
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (128), (147), (238), (248)
 <223> unsure at all n locations

<400> 1559

gcattgggga gactctcgaa cagcgtgaag ctggtacaac aacggctgtt gtttctgagc 60
 aaacaaaagc aattgcagct aaaatatcaa attgggacaa tgcggttttg gcctacgagc 120
 cagtttgngc cattggaaca ggaaagnttg ctactcctgc tcaggctcaa gaggtccatg 180
 cggatttgag gaaatggggtt catgacaatg tgagtgtga agttgtgtgca tcggtaanat 240
 ttatctangg aggtctgt 258

<210> 1560
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1560

tgcttatact ggagagggtta gtgctgaaat gcttggttaat ttgggaattc cttgggttat 60
 tattggtcac tctgaacgga ggcagctttt gaatgaatca aatgagtttg tgggagataa 120
 agttgcctat gcacttcaac aagggtctgaa agttatagca tgcattgggg aaactcttga 180
 acagcgtgaa gctggtacaa caacggctgt tgttgtgtgag caaacaaaag caattgcagc 240
 taaaatatca aattgggaca atgctgtttt ggcttatg 278

<210> 1561
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1561

ctcgtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa attcttcgtc ggtggcaact 60

<400> 1567
 gtaaaaaatc atgggcagaa aattcttcgt cggtaggcaac tggaaatgca atgggaccac 60
 tgaggaggtg aagaagattg ttactacttt aaatgaagct aaagtccttg gagaagatgt 120
 tgtagaagtt gttgtgagcc ctccttttgt gttccttcct tttgtaaaaa gtttgctgcg 180
 ccctgatttc catgtctcgg cccaaaattg ttgggttcgc aaaggtggtg cttatactgg 240
 agaggttagt gctgaaatgc tt 262

<210> 1568
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 1568
 gtctgcttct tcactttctc tcgtttcaat cgaaaaaat catgggcaga aaattcttcg 60
 tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt gaagaagatt gttactactt 120
 taaatgaagc taaagtcctt ggagaagatg ttgtagaagt tgttgtgagc ctcctttctg 180
 tgttccttcc ttttgtaaaa agtttgctgc gccctgattt ccatgtctcg gcccaaaatt 240
 gttgggttcg caaaggtggt gcttat 266

<210> 1569
 <211> 281
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (37), (144), (221)
 <223> unsure at all n locations

<400> 1569
 gtagaagttg ttgtgagccc tccttttgtg ttccttnctt ttgtaaaaag tttgctgctg 60
 cctgatttcc atgtctcggc ccaaaattgt tgggttcgca aaggtggtgc ttatactgga 120
 gaggttagtg ctgaaatgct tgtnaatttg ggaattcctg ggttattatt ggtcactctg 180
 aacggaggca gcttttgaat gaatcaaag agtttggtgg nccataaagt tgcctatgca 240
 cttcaacaag gtctgaaatt atagcatgca ttgggccaac c 281

<210>	1570
<211>	284
<212>	nucleic acid
<213>	Glycine max

atcttcactt	tctctcgttt	caatcgaaac	caaaacaaaa	acatgggcag	aaaattcttc	60
gtcggtgcca	actggaaatg	caatgggacc	actgaggagg	taaagaagat	tgttactact	120
ttgaatgagg	ctaaagtccc	tggagaagat	gtcgtagaag	ttgttgtag	ccctcctttt	180
gtgttccttc	ctgttgtaaa	aagtttgctg	cgccctgatt	tccatgtttc	ggcacaaaaac	240
tgttgqgttc	gcaaaggtgg	tgcctatacc	ggtgaggtta	gtgc		284

<400> 1571

gcttcttcac	tttctctcgt	ttcaatcgaa	acccaaaaca	aaacatgggc	agaaaattct	60
tcgtcggtag	caactggaaa	tgcaatggga	ccactgagga	ggtaaagaag	attgttacta	120
ctttgaatga	ggctaaagtc	cctggagaag	atgtcgtaga	agttgttgtg	agccctcctt	180
ttgtgttcct	tccgtttgta	aaaagtttgc	tgcgccctga	tttccatggt	tcggcacaaa	240
actgttgggt	tcgcaaaggt	gg				262

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<220>
<221>      unsure
<222>      (182)
<223>
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<400>	1572
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aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt gaagaagatt 120
gttactactt taaatgaagc taaagtccct ggagaagatg ttgtagaagt tgttgtgagc 180

cntccttttg tgttccctcc ttttgtaaaa agtttgctgc gccctgattt ccatgtctcg 240
gccccaaatt gttgggttcg caaagtgggtg ctta 274

<210> 1573
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1573

cactttctct cgtttcaatc gaaaaaaatc atgggcagaa aattcttcgt cgggtggcaac 60
tggaatgca atgggaccac tgaggaggtg aagaagattg ttactacttt aaatgaagta 120
aagtccttgg agaagatgtt gtagaagttg ttgtgagccc tccttttgtg ttccttcctt 180
ttgtaaaaag tttgctgcgc cctgatttcc atgtctcggc ccaaattgt tgggttcgca 240
aaggtgggtgc tta 253

<210> 1574
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 1574

aagggtttct cttctctttc tctgtctgct tcttcacttt ctctcgtttc aatcgaaaaa 60
aatcatgggc agaaaattct tcgtcgggtg caactggaaa tgcaattggg aactgagga 120
ggtgaagaag attgttacta ctttaaataga agctaaagtc cctggagaag atgtttaga 180
agttgttgtg agccctcctt ttgtgttctt tccttttgta aaacgtttgc tgcgccctga 240
tttccatgtc tcggcccaaa attgttgggt tcgcaaaggt ggtg 284

<210> 1575
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 1575

gcttcttcac tttctctcgt ttcaatcgaa agcaaaacaa aaacatgggc agaaaattct 60
tcgtcgggtg caactggaaa tgcaatggga cactgagga ggtaaagaag attgttacta 120
ctttgaatga ggctaaagtc cctggagaag atgtcgtaga agttgttgtg agccctcctt 180

gtttcggcac aaaact

256

<210> 1585
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 1585

tcgctgtctg cttcttcact ttctctcggt tcaatcgaga ccagaacaaa aacatgggca 60

gaaaattctt cgtcgggtggc aactggaaat gcaatgggat cactgaggag gtaaagaaga 120

ttgttactac tttgaatgag gctaaagtcc ctggagaaga tgcgtagaa gttgttgtga 180

gccctccttt tgtgttcctt cctgttgtaa aaagtttgct gcgccctgat ttccatgttt 240

cggcacgaaa ctggtt 255

<210> 1586
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1586

tctgtctgct tcttcacttt ctctcgtttc aatcgaaacc aaaacaaaaa catgggcaga 60

aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt aaagaagatt 120

gttactactt tgaatgaggc taaagtcctt ggagaatgtc gtagaagttg ttgtgagccc 180

tccttttgtg ttccttcctg ttgtaaaaag ttgtctgcgc cctgatttcc atgtttcggc 240

acaaaactgt tgggttcgc 259

<210> 1587
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 1587

tgctttctca cttctctctg tttcaatcga gaaaaatcat gggcagaaga ttcttcgtcg 60

gtggcaactg gaaatgcaat gggaccactg aggaggtgaa gaagattgtg actactttaa 120

atgaagctaa agtccctgga gagatgttgt agaagttggt gtgagccctc cttttgtgtt 180

ccttcctttt gtaaaaagtg tgctgcgccc tgatttccat gtctcggccc aaaattgttg 240

ggttcgcaaa

250

<210> 1588
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 1588

attgttgaac aagggtttct ctgtctgctt cttcactttc tctcgtttca atcgaaacca 60
aaacaaaaac atgggcagaa aattcttcgt cggtggcaac tggaaatgca atgggaccac 120
tgaggaggta aagaagattg ttactacttt gaatgaggct aaagtccttg gagaagatgt 180
cgtagaagtt gttgtgagcc ctccctttgt gttccttcct gttgtaaaaa gtttgctgcg 240
ccctgatttc catgtttcgg cacaa 265

<210> 1589
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 1589

gtttctcttt ctctttctct gtctgcttct tcactttctc tcgtttcaat cgaaaaaat 60
catgggcaga aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt 120
gaagaagatt gttatacttt aaatgaagct aaagtccttg gagaagatgt tgtagaagtt 180
gttgtgagcc ctccctttgt gttccttcct tttgtaaaaa gtttgctgcg ccctgatttc 240
catgtctcgg cccaaaattg ttgggtt 267

<210> 1590
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 1590

agggtttctc tttctctttc tctgtctgct tcttcacttt ctctcgtttc aatcgaaaaa 60
aatcatgggc agaaaattct tcgtcgggtg caactggaaa tgcaatggga ccaactgagga 120
ggtgaagaag attgttacta ctttaaataga agctaaagtc cctggagaag atgttgtaga 180
agttgttgtg agccctcctt ttgtgttcct tccttttgta aaaagtttgc tgcgccctga 240

tttccatgtc 250

<210> 1591
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 1591

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaaccataa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtaaaaagt ttgctgcgctc 240
tgatttccat g 251

<210> 1592
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 1592

cttctctgtc tgctttctca ctttctctcg tttcaatcga aacaaaaaca aaaacatggg 60
cagaaaattc ttcgtcgggtg gcaactggaa atgcaatggg accactgagg aggtaaagaa 120
gattgttact actttgaatg aggctaaagt ccctggagaa gatgtcgtag aagttgttgt 180
gagccctcct tttgtgttcc ttctgttgtt aaaaagtttg ctgcgccctg atttccatgt 240
ttcgg 245

<210> 1593
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1593

gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcgggtgg aactggaaat gcaatgggac cactgaggag 120
gtgaagaaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgttgtagaa 180
gttggtgtga gccctccttt tgtgttcctt cttttgttaa aaagtttgct gcgccctgat 240

ttccatgtct cgg 253

<210> 1594
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1594

tgttgaacaa gggttttctct gtctgcttct tcactttctc tcgtttcaat cgaaacaaaa 60
 aaaaaatcat gggcagaaaa ttcttcgttg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtacctgga gaagatgtcg 180
 tagaagttgt tgtgagccct ccttttgtgt tccttctctg tgtaaaaagt ttgctgcgcc 240
 ctgatttcca tgtttcggca ca 262

<210> 1595
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (80), (161), (249) ... (250)
 <223> unsure at all n locations

<400> 1595

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 tgggcagaaa attcttcgtn ggtggcaact ggaaatgcaa tgggaccact gaggaggtaa 120
 agaagattgt tactactttg aatgaggcta aagtcctctg ngaagatgtc gtagaagttg 180
 ttgtgagccc tccttttctg ttcttctctg ttgtaaaaag tttgctgcgc cctgatttcc 240
 atgtttcgnn cac 253

<210> 1596
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1596

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60

<400> 1599

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaa 60

caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120

ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180

agaagttgtt gtgagccctc cttttgtgtt ccttctgtt gtaaaaagtt tgctgcgcc 240

tgatttccat gtttcggcac aaa 263

<210> 1600

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 1600

tgttgaacaa gggtttctct gtctgcttct tcactttctc acgtttcaat cgaaacaaaa 60

acaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120

aggaggtaaa gaagattgtt actactttga atgaggctaa agtccctgga gaagatgtcg 180

tagaagttgt tgtgagccct accttttgtg ttcttacctg ttgtaaaaag tttgctgcgc 240

cctgatttcc a 251

<210> 1601

<211> 255

<212> nucleic acid

<213> Glycine max

<400> 1601

tgaacaaggg tttctctgtc tgcttcttca ctttctctcg tttcaatcga aacaaaaaca 60

aaaacatggg cagaaaattc ttcgtcgggtg gcaactggaa atgcaatggg accactgagg 120

aggtaaagaa gattgttact actttgaatg aggctaaagt ccctggagaa gatgtcgtag 180

aagttgttgt gagccctcct tttgtgttcc ttctgttgt aaaaagtttg ctgcgccctg 240

atttccatgt ttcgg 255

<210> 1602

<211> 246

<212> nucleic acid

<213> Glycine max

<400> 1602
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 acaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattgtt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct ccttttgtgt tccttctgt tgtaaaaagt ttgctgcgcc 240
 ctgatt 246

<210> 1603
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1603
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 aaacaaaatc atgggcagaa aattcttcgt tgggtggcaac tggaaatgca atgggaccac 120
 tgaggaggta aagaagattg ttactacttt gaatgaggct aaagtccctg gagaagatgt 180
 cgtagaagtt gttgtgagcc ctccttttgt gttccttctt gttgtaaaaa gtttgcgcgc 240
 ccctgattt 249

<210> 1604
 <211> 227
 <212> nucleic acid
 <213> Glycine max

<400> 1604
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 ttctgcggtg gcaactggaa atgcaatggg accactgagg aggtaaagaa gattgttact 120
 actttgaatg aggctaaagt cccgggggaa gatgtcgtag aagttgttgt gagccctcct 180
 tttgtgttcc ttctgttgt aaaaagtttg ctgcgccttg atttcca 227

<210> 1605
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 1605

ggtgagcaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtagaaagt tgcgtgcgcc 240
tgatttccat gtttcggcac aaaact 266

<210> 1606
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 1606

ggtgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtaaaaagt tgcgtgcgcc 240
tgatttccat gtttcggc 258

<210> 1607
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 1607

tggtgaacaa gggtttctct gtctgcttct tcaactttctc tcgtttcaat cgaaacaaaa 60
acaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
aggaggtaaa gaagattgtt actactttga atgaggctaa agtccctgga gaagatgtcg 180
tagaagttgt tgtgagccct cttttgtgtt tccttcctgt tgtaaaaagt ttgctgcgcc 240
ct 242

<210> 1608
<211> 252
<212> nucleic acid
<213> Glycine max

<220>

<221> unsure
 <222> (17), (23), (29) ... (30), (76) ... (77), (98), (103), (132),
 (206)
 <223> unsure at all n locations

 <400> 1608

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 acaaaatcat gggcannaaa ttcttcgttg gtggcaantg ganatgcaat gggaccactg 120
 aggaggtaaa gnagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct cctttngtgt tccttcctgt tgtaaaaagt ttgctgcgcc 240
 ctgatttcca tg 252

<210> 1609
 <211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 1609

 tttctctttc tctttctctg tctgcttctt cactttctct cgttttcaatc gaaaaaaatc 60
 atgggcagaa aattcttcgt cgggtggcaac tggaaatgca atgggaccac tgaggagggtg 120
 aagaagattg ttactacttt aaatgaagct aaagtccctg gagaagatgt tgtagaagtt 180
 gttgtgagcc ctcttttgt gttccttctt tttgtaaaaa gtttgctggc gccctgattt 240
 ccatgtctcg gcccaaaatt gttggg 266

<210> 1610
 <211> 339
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (334)
 <223>

<400> 1610

 gttgaacaag ggtttctctg tctgcttctt cactttctct cgttttcaatc gaaacccaaaa 60
 caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180

tagaagttgt tgtgagccct ccttttgtgt tccttcctgt tgtaaaaagt ttgctgcgcc 240
 ctgattccat gtttcggcac aaaactgttg ggttcgcaaa gtggtgctta taccggaggt 300
 tagtgctgaa atgctgttaa ttgggaatcc cctngggaa 339

<210> 1611
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<400> 1611

attgtattgt tgaacaaggg tttctctgtc tgcttcttca ctttctctcg tttcaatcga 60
 aaccaggttg aggacatggg cagaaaattc ttcgtcgggtg gcaactggaa atgcaatggg 120
 accactgagg aggtaaagaa gattgttact actttgaatg aggctaaagt ccctggagaa 180
 gatgtcgtag aagttgttgt gagccctcct tttgtgttcc ttctgttgt aaaaagtttg 240
 ctgcgcctg atttccatgt ttcggcacia aa 272

<210> 1612
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (21), (31), (46), (218), (241)
 <223> unsure at all n locations

<400> 1612

ggtttctctt tctctttctc ngtctgcttc ntcactttct ctgtnntcaa tcgaaaaaaa 60
 tcatgggcag aaaattcttc gtccgtggca actggaaatg caatgggacc actgaggagg 120
 tgaagaagat tgttactact ttaaatagaag ctaaagtccc tggagaagat gttgtagaag 180
 ttgttgtagag cctcctttt gtgttccttc ctttgtanaa agtttgctgc gccctgattt 240
 nccatgtctc ggcccaaaat tggt 264

<210> 1613
 <211> 190
 <212> nucleic acid
 <213> Glycine max

<400> 1613

ttaaaatcat gggcagaaaa ttcttcgctg gtggcaactg gaaatgcaat gggaccactg 60
aggaggtgaa gaagattggt actactttta atgaagctaa agtcacctgga gaagatgttg 120
tagaagttgt tgtgagccct ccttttgtgt tccttccttt tgtaaaaagt ttgctgcgcc 180
ctgatttcca 190

<210> 1614
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 1614
caatgaacaa gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca 60
atcgaaaaaa atcatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac 120
cactgaggag gtgaagaaga ttgttactac tttaaataaa gctaaagtcc ctggagaaga 180
tgtttagtaa gttgttgtga gccctccttt tgtgttcctt ccttttgtaa aaagtttgct 240
gcgcctga 249

<210> 1615
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 1615
gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caaaaacatg ggcagaaaat tcttcgctcg tggaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttgtt gtgagccctc cttttgtgtt ccttcctggt gtaaaagttt gctgcgcctt 240
gatttccatg ttteggc 257

<210> 1616
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 1616
ctcgagccgg ttgaacaagg gtttctctgt ctgcttcttc actttctctc gtttcaatcg 60

aaacccaaaac aaaaacatgg gcagaaaatt ctctgctcggg ggcaactgga aatgcaatgg 120
gaccactgag gaggttaaaga agattgttac tactttgaat gaggctaaag tccctggaga 180
agatgtcgta gaagttgttg tgagccctcc ttttgtgttc ctctctcttg taaaaag 237

<210> 1617
<211> 245
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (190)
<223>

<400> 1617

gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
ttcaatcgca aaaaaatcat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat 120
gggaccactg aggaggtgaa gaagattgtt actactttaa atgaagctaa agtccctgga 180
gaagatgtn aagaagttgt tgtgagccct ccttttgtgt tccttccttt gtaaaaagtt 240
tgctg 245

<210> 1618
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1618

agggtttctc tttctctttc tctgtctgct tcttcacttt ctctcgttca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag 120
gtgaagaaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgttgtagaa 180
gttggtgtga gccctccttt tgtgttcctt ccttttgtaa aaagtttgct gcgcctgat 240
ttccatgtct cggcccaaa 259

<210> 1619
<211> 241
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (221)
 <223>

 <400> 1619

 gggtttctctt tctctttctc tgtctgcttc ttcactttct ctggtttcaa tcgaaaaaaa 60
 tcatgggcag aaaattcttc gtcggtggca actggaaatg caatgggacc actgaggagg 120
 tgaagaagat tggtactact ttaaatagaag ctaaagtcct tggagaagat gttgtagaag 180
 ttgttgtagag cctctctttt gtgttctctc ttttgtaaaa ngtttgctgc gccctgattt 240
 c 241

<210> 1620
 <211> 272
 <212> nucleic acid
 <213> Glycine max

 <400> 1620

 tacggctgcg agaagacgac agaaggggac tcgcagttgt attggtgaac aagggtttct 60
 ctgtctgctt cttcactttc tctcgtttca atcgaaacca aaacaaaaac atgggcagaa 120
 aattcttcgt cggtggcaac tggaaatgca atgggaccac tgaggaggta aagaagattg 180
 ttactacttt gaatgaggct aaagtccttg gagaagatgt cgtagaagtt gttgtgagcc 240
 ctctttttgt gttccttctt gttgtaaaaa gt 272

<210> 1621
 <211> 221
 <212> nucleic acid
 <213> Glycine max

 <400> 1621

 tggtgaacaa ggggtttctct gtctgcttct tcactttctc tcgttttcaat cgaaacaaaa 60
 aaaaaaacat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120
 aggaggtaaa gaagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct ccttttgtgt tccttctgt t 221

<210> 1622
 <211> 266

<212> nucleic acid
<213> Glycine max

<400> 1622

aacggctgcg agaagacgac agaagggggc agttgtattg ttgaacaagg gtttctctgt 60
ctgcattcttc gctttctctc gtttcaatcg aaacccaaac aaaaacatgg gcagaaaatt 120
cttcgtcggg ggcaactgga aatgcaatgg gaccactgag gaggtaaaga agattgttac 180
tactttgaat gaggctaaag tccctggaga agatgtcgta gaagttgttg tgagccctcc 240
ttttgtgttc cttcctgttg taaaaa 266

<210> 1623
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 1623

ggctgcgaga agacgacaga aggggactcg cagttgtatt gttgaacaag gtttctctctg 60
tctgcttctt cactttctct cgtttcaatc gaaacccaaa caaaaacatg ggcagaaaat 120
tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga ggaggtaaag aagattgtta 180
ctactttgaa tgaggctaaa gtccctggag aagatgtcgt agaagttggt gtgagccctc 240
cttttgtggt ccttctgtt 260

<210> 1624
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 1624

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacccaaa 60
caaaaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttggt gtgagccctc cttttgtggt ccttctgtt gtaaaaagtt tgctgcgccc 240
tgatttccat gtttcggcac aaaactgttg ggt 273

<210> 1625
<211> 257

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (89), (127), (195), (206), (219), (229), (232), (239), (245)
<223> unsure at all n locations

<400> 1625

ctctctcttt ctctgtctgc ttcttcaatt tctctcgttt caatcgaaaa aaatcatggg 60
cagaaaattc ttcgtcgggtg gcaactggna atgcaatggg accactgagg aggtgaagaa 120
gattgttnact actttaaatg aagctaaagt ccctggagaa gatgtttag aagttgttgt 180
gagccctcct ttgtntcca tccttngtaa aaatttgcng cgcccggant tncatgtcng 240
ggccnaaatt gttgggt 257

<210> 1626
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 1626

cgctgtttcg acggtcacac gcagttgtat tgtagaactg accaaggggt tctctttctc 60
tttctctgtc tgcttcttca ctttctctcg tttcaatcga aaaaaatcat gggcagaaaa 120
ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg atgaggtgaa gaagattgtt 180
actactttaa atgaagctaa agtccctgga gaagatgttg tagaagttgt tgtgagccct 240
ccttttgtgt tccttccttt tgtaaaaagt tt 272

<210> 1627
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1627

tacggctgcy agaagacgac agaaggggac tcgcagttgc attgttgaac aagggtttct 60
ctgtctgctt cttcactttc tctcgtttca atcgaaacca aaacaaaaac atgggcagaa 120
aattcttcgt cgggtggcaac tggaaatgca atgggaccac tgaggaggta aagaagattg 180
ttactacttt gaatgaggct aaagtccctg gagaagatgt cgtagaagtt gttgtgagcc 240

ctccttttgt gtt

253

<210> 1628
<211> 148
<212> nucleic acid
<213> Glycine max

<400> 1628

aaaaacatgg gcagaaaatt cttcgtcggg ggcaactgga aatgcaatgg gaccactgag 60

gaggtaaaga agattgttac tactttgaat gaggctaaag tccctggaga agatgtcgta 120

gaagttgttg tgagccctcc ttttgtgt 148

<210> 1629
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 1629

tacggctgcg agaagacgac agaagggggc agttgtattg ttgaacaagg gtttctctgt 60

ctgcttcttc actttctctc gtttcaatcg aaacaaaaac aaaaacatgg gcagaaaatt 120

cttcgtcggg ggcaactgga aatgcaatgg gaccactgag gaggtaaaga agattgttac 180

tactttgaat gaggctaaag tccctggaga agatgtcgta gaagttgttg tgagccctcc 240

ttttgtgttc cttcctgttg taaaaagt 268

<210> 1630
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 1630

acggtcacac gcagttgtat tgtagaactg aacaaggggt tctctttctc tttctctgtc 60

tgcttcttca ctttctctcg tttcaatcga aaaaaatcat gggcagaaaa ttcttcgtcg 120

gtggcaactg gaaatgcaat gggaccactg aggaggtgaa gaagattgtt actactttaa 180

atgaagctaa agtccctgga gaagatgttg tagaagttgt tgtgagccct ctttttgtgt 240

tccttccttt tgtaaaaaagt ttgct 265

<210> 1631

<211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 1631

gtagaactga acaaggggtt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gtccctggag 180
 aagatgttgt agaagttggt gtgagccctc cttttgtggt ccttcctttt gtaaaaagtt 240
 tgctgcgcgc tgatttccat gtctcggccc aaaa 274

<210> 1632
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45), (61), (106), (110), (119), (123), (126), (130),
 (141)... (143), (145), (161), (172)... (174), (194), (199),
 (207)... (208), (216), (221), (228), (230), (238), (251)
 <223> unsure at all n locations

<400> 1632

ctttctcttt ctctgtctgc ttcttcactt tctctcgttt caatngaaaa aaatcatggg 60
 nagaaaattc ttcgtgcggg ggcaactgga aatgcaatgg gaccanttan gacgtgaana 120
 agnttnttan tactttaaat nnnngntaaag tccctggaga ngatgttgta gnnnttggtg 180
 tgagccctcc tttngtgtnc cttcctnntg taaaangttt nctgcgcncn gatttccntg 240
 tctcggccca naatt 255

<210> 1633
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1633

cgagaagacg acagaagggg gcagttgtat tgttgaacaa gggtttctct gtctgcttct 60
 tcactttctc tcgtttcaat cgaaacacaaa acaaaaacat gggcagaaaa ttcttcgtcg 120
 gtggcaactg gaaatgcaat gggaccactg aggaggtaaa gaagattggt actactttga 180

atgaggctaa agtccctgga gaagatgtcg tagaagttgt tgtgagcctc cttttgtggt 240
cttcctgttg taaaagttgc tg 262

<210> 1634
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 1634

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caacaacatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg ggaccactga 120
ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
agaagttggt gtgagccctc cttttgtggt ctttcctgtt gtacaaaagt tgctgcgccc 240
tgatttccat gtttcggcac aaaa 264

<210> 1635
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 1635

gggtttctct ttctctttct ctgactgctt cttcactttc tctcgttgca atcgaaaaaa 60
atcatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag 120
gtgaagcaga ttgttactac tttaaatgaa gctaaagtcc ctggagaaga tgtttagac 180
gttgttgtga gccctccttt tgtgttcctt ctttttgtaa aaagtttgct gcgccctgat 240
ttccatgtct cgga 254

<210> 1636
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 1636

tacggctgcg agaagacgac agaagggggc agttgtattg ttgaacaagg gtttctctgt 60
ctgcttcttc actttctctc gtttcaatcg aaacaaaaac aaaaacatgg gcagaaaatt 120
cttcgtcggg ggcaactgga aatgcaatgg gaccactgag gaggtaaaga agattgttac 180

tactttgaat gaggctaaag tccctggaga agatgtcgta gaagttgttg tgag 234

<210> 1637
<211> 193
<212> nucleic acid
<213> Glycine max

<400> 1637

gtttctcttt ctctttctct gtctgtctct tcactttctc tcgtttcaat cgaaaaaat 60
catgggcaga aaattcttcg tcggtggcaa ctggaaatgc aatgggacca ctgaggaggt 120
gaagaagatt gttactactt taaatgaagc taaagtcctt ggagaagatg ccgtagaagt 180
tgttgtgagc cct 193

<210> 1638
<211> 300
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (211)
<223>

<400> 1638

acggctgcga gaagacgaca gaaggggaca cgcagttgta ttgtagaact gaacaagggt 60
ttctctttct ctttctctgt ctgtctcttc actttctctc gtttcaatcg aaaaaaatca 120
tgggcagaaa attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtga 180
agaagattgt tactacttta aatgaagcta nagtcctctg agaagatggt gtagaagttg 240
ttgtgagcct ccttttgtgt tcttcctttt gtaaaaattg ctgcgcctga ttccagtctc 300

<210> 1639
<211> 240
<212> nucleic acid
<213> Glycine max

<400> 1639

aggctgtatt gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac 60
tttctctcgt ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg 120

aaatgcaatg ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa 180
gtccctggag aagatgttgt agaagttgtt gtgagcctcc ttttgtgttc cttcttttgt 240

<210> 1640
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (233)
<223>

<400> 1640

ctgaacaagg gtttctcttt ctctttctct gtctgcctct tcactttctc tcgtttcaat 60
cgaaaaaatc atgggcagaa aattcttccg tcggtggcaa ctggaaatgc aatgggacca 120
ctgaggaggt gaagaagatt gttatacttt aaatgaagct aaagtccctg gagaagatgt 180
tgtagaagtt gttgtgagcc ctccctttgt gttccttcct ttgtaaaaag ttngctgcgc 240
cctgatttcc atgtctcggc ccaaaattgt tgggttcg 278

<210> 1641
<211> 263
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (94), (107), (115), (149), (157), (172), (191), (211), (216)
<223> unsure at all n locations

<400> 1641

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
caaaaacatg ggcagaaaat tattcgctcg tggnaactgg aaatgcnatg ggacnactga 120
ggaggtaaag aagattgtta ctactttgna tgaggcnaaa gtccctggag angatgtcgt 180
agaagttgtt ntgaggcctc cttttgtgtt ncttcnccgt tgtaaaaaagt ttgctgcgcc 240
ctgatttcca tgtttcggca caa 263

<210> 1642
<211> 238
<212> nucleic acid

<213> Glycine max

<400> 1642

aacaaggggtt tctctgtctg cttcttccact ttctctcggt tcaatcgaaa ccaaaacaaa 60
 aacatgggca gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag 120
 gtaaagaaga ttgttactac tttgaatgag gctaaagtcc ctggagaaga tgctcgtagaa 180
 gttgttgtga gccctccttt tgtgttcctt cctgttgtaa aaagtttgct gcgccctg 238

<210> 1643

<211> 266

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (8), (20), (45), (122), (132), (260), (262)

<223> unsure at all n locations

<400> 1643

gttgaacnag ggtttctctn tctgcttctt cactttctct cgttnccaat cgaaacccaaa 60
 acaaatcat gggcagaaaa ttcttcgttg gtggcaactg gaaatgcaat gggaccactg 120
 angaggtaaa gnagattggt actactttga atgaggctaa agtccctgga gaagatgtcg 180
 tagaagttgt tgtgagccct cctttgtgtt ccttcctggt gtaaaaagtt tgctgcgccc 240
 tgatttccat gtttcggcan anactg 266

<210> 1644

<211> 256

<212> nucleic acid

<213> Glycine max

<400> 1644

gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacccaaaa 60
 caaatcatg ggcagaaaat tcttcgttgg tggcaactgg aaatgcaatg ggaccactga 120
 ggaggtaaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
 agaagttggt gtgagccctc ttttgtgttc cttcctgttg taaaaagttt gctgcgcctt 240
 gatttccatg tttcgg 256

<210> 1645
 <211> 250
 <212> nucleic acid
 <213> Glycine max

 <400> 1645

 ctacagctgg ggactcgcag ttgtattgtt gaacaagggt ttctctgtct gcttcttcac 60
 tttctctcgt ttcaatcgaa accaaaacaa aaacatgggc agaaaattct tcgtctgtgg 120
 caactggaaa tgcaatggga ccaactgagga ggtaaagaag attgttacta ctttgaatga 180
 ggctaaagtc cctggagaag atgtcgtaga agttgttgtg agccctcttt tgtgttcctc 240
 ctgttgtaaa 250

<210> 1646
 <211> 264
 <212> nucleic acid
 <213> Glycine max

 <400> 1646

 acggctgcga gaagacgaca gaaggggact cgcagttgta ttgttgaaca aggggttctc 60
 tgtctgcttc ttcactttct ctggtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa 120
 attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtaa agaagattgt 180
 tactactttg aatgaggcta aagtcctgga agaagatgtc gtagaagttg ttgtgagccc 240
 tccttttgtg ttccttctctg ttgt 264

<210> 1647
 <211> 267
 <212> nucleic acid
 <213> Glycine max

 <400> 1647

 gtagtactga tcaagggtgt ctgtttctat gtctctgtgt gtttcgtcac tttctctcgt 60
 ttcaatcgaa aaagatcatg ggtagaagat tagtcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggagggtgaag aagattgtta ctactttaaa tgaggctaaa gtccctggag 180
 aagatgttgt tgaagttgtt gtgagccgcc ttttgtgttc ctccttttgt agaggtttgc 240
 tgcgcctgga tttccatgtc tcggccc 267

<210> 1648
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1648

gtagaactga acaagggttt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gtccctggag 180
 aagatgttgt agaagttgtt gtgagcctcc ttttgtgttc ctctctttgt aaaaagtt 238

<210> 1649
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1649

gaacaagggt ttctctttct ctttctctgt ctgcttcttc actttctctc gtttcaatcg 60
 aaaaaaatca tgggcagaaa attcttcgtc ggtggcaact ggaaatgcaa tgggaccact 120
 gaggaggtga agcagattgt tactacttta aatgaagcta cagtcctcgg agaagatgtt 180
 gtagaagttg ttgtgagccc tccttttctg ttcttctctt ttgtaaaaag tttgctgcgc 240
 cctgatttcc atgtctcggc ccaaaattgt tgg 273

<210> 1650
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 1650

acggctgcga gaagacgaca gaaggggact cgcagttgta ttgttgaaca agggtttctc 60
 tgtctgcttc ttcactttct ctggtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa 120
 attcttcgtc ggtggcaact ggaaatgcaa tgggaccact gaggaggtta agaagattgt 180
 tactactttg aatgaggcta aagtcctcgg aagagatgtc gtagaagttg ttgtgagccc 240

<210> 1651
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (41)...(42)
 <223> unsure at all n locations

 <400> 1651

 gcgcattatt ataaagagtg ataaggttgt ttggacggtc nntcgcagtt gtattgttga 60
 acaaggggtt ctctgtctgc ttcttcactt tctctcggtt caatcgaaac caaaacaaaa 120
 acatgggcag aaaattcttc gtcggtggca actggaaatg caatgggacc actgaggagg 180
 taaagaagat tgttactact ttgaatgagg ctaaagtccc ggagaagatg tcgtagaagt 240
 tgttgtgagc cc 252

<210> 1652
 <211> 274
 <212> nucleic acid
 <213> Glycine max

 <400> 1652

 gtagaactga acaaggggtt ctctttctct ttctctgtct gcttcttcac tttctctcgt 60
 ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg tggcaactgg aaatgcaatg 120
 ggaccactga ggaggtgaag aagattgtta ctactttaaa tgaagctaaa gccctggag 180
 aagatgttgt agaagttgtt gtgagccctc cttttgtgtt ccttcctttt gtaaaaaagt 240
 tgctgcgcgc tgatttccat gtctcgcccc aaaa 274

<210> 1653
 <211> 185
 <212> nucleic acid
 <213> Glycine max

 <400> 1653

 gttgaacaag ggtttctctg tctgcttctt cactttctct cgtttcaatc gaaacaaaaa 60
 caaatcatg ggcagaaaat tcttcgttgg tggcaactgg aaatgcaatg ggaccactga 120
 ggaggtaaag aagattgtta ctactttgaa tgaggctaaa gtccctggag aagatgtcgt 180
 agaag 185

<210> 1654

<211> 215
<212> nucleic acid
<213> Glycine max

<400> 1654

gcttcttcac tttctctcgt ttcaatcgaa aaaaatcatg ggcagaaaat tcttcgtcgg 60
tggcaactgg aaatgcaatg ggaccactga ggaggtgaag aagattgtta ctactttaaa 120
tgaagcgtaa gtcgctggag gagaatgtgt agaagtgggt gtgagcctcc tttttgtgtc 180
cttccttttt taaaaaattt gctggggcct gatatt 215

<210> 1655
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 1655

gaggaaactg caaagaattg gcagcacagc ccgatgttga tggatttttg gttggtggtg 60
catccctcaa ggcggaattt gtggacatca taaacgctgc tactgtgaag aagaattgaa 120
attcgtagtt aggaactgat aatgctgcct ttcaagctgc ttcggaaatt gctgtttttg 180
agttttgggt ctgtgctttg tggccaatgt attgaactct gtttagtacc tgaataaaca 240
tgctttcctt tgatctcatc catagg 266

<210> 1656
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 1656

cgaaactgca aagaattggc agcacagccc gatgttgatg gattttttggt tgggtggtgca 60
tccctcaagg cggaatttgt ggacatcata aacgctgcta ctgtgaagaa gaattgaaat 120
tcgtagttag gaactgataa tgctgccttt caagctgctt cggaaattgc tgtttttgag 180
ttttggttct gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg 240
ctttcctt 248

<210> 1657
<211> 254
<212> nucleic acid

<213> Glycine max

<400> 1657

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atccctcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata tgctgccttt caagctgctt cggaaattgc tgtttttgag ttttggttct 180
gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg ctttcctttg 240
atctcatcca tagg 254

<210> 1658

<211> 225

<212> nucleic acid

<213> Glycine max

<400> 1658

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atccctcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata atgtgccttt tcaagctgct tcggaaattg ctgtttttga gttttggttc 180
tgtgctttgt ggccaatgta ttgaactctg ttagtacct gaata 225

<210> 1659

<211> 258

<212> nucleic acid

<213> Glycine max

<400> 1659

aaagaattgg cagcacagcc cgatgttgat ggatttttgg ttggtggtgc atcactcaag 60
gcggaatttg tggacatcat aaacgctgct actgtgaaga agaattgaaa ttcgtagtta 120
ggaactgata atctgccttt caagctgctt cggaaattgc tgtttttgag ttttggttct 180
gtgctttgtg gccaatgtat tgaactctgt ttagtacctg aataaacatg ctttcctttg 240
atctcatcca taggcgat 258

<210> 1660

<211> 145

<212> nucleic acid

<213> Glycine max

<400> 1660

gaaaattctt cgtcgggtggc aactggaaat gcaatgggac cactgaggag gtaaagaaga 60

ttgttactac tttgaatgag gctaaagtcc ctggagaaga tgtcgtagaa gttgttgtga 120

gccctccttt tgtgttcctt cctgt 145

<210> 1661

<211> 180

<212> nucleic acid

<213> Glycine max

<400> 1661

agaaaagggg ttctctgtct gcttcttcac tttctctcgt ttcaatcgaa accaaaacaa 60

aaacatgggc agaaaattct tcgtcgggtgg caactggaaa tgcaatggga cactgagga 120

ggtaaagaag attgttacta ctttgaatga ggctaaagtc cctggagaag atgtcgtaga 180

<210> 1662

<211> 98

<212> nucleic acid

<213> Glycine max

<400> 1662

ttgttttggc ctacgagcca gtttgggcca ttggaacagg aaaggttgct actcctgctc 60

aggctcaaga ggggtccatgc tgatttgagg aaatgggt 98

<210> 1663

<211> 147

<212> nucleic acid

<213> Glycine max

<400> 1663

gctcgagggt tctctttctc tttctctgtc tgcttcttca ctttctctcg tttcaatcga 60

aaaaaatcat gggcagaaaa ttcttcgtcg gtggcaactg gaaatgcaat gggaccactg 120

aggaggtgaa gaagattgtt actactt 147

<210> 1664

<211> 265

<212> nucleic acid

<213> Glycine max

<220>
 <221> unsure
 <222> (9), (15), (49), (54), (132), (134) ... (135), (151),
 (178) ... (179), (212), (239), (255), (264)
 <223> unsure at all n locations

 <400> 1664

 gttttctctnt ctctntctct gtctgcttct tcactttctc tcgtttcant cganaaaaaat 60
 catgggcaga aaattctcgt cgggtggcaac tggaaatgca atgggaccac tgaggaggtg 120
 aagaagattg tngnnactta aattgaagcc naaatccct tggggaaatg ttgtagannt 180
 tgttgtgagc cctccttttg tgttccttcc tntgtaaaaa gtttgctgcg ccctgattnc 240
 cagtctcggg ccanaaatgg tggng 265

<210> 1665
 <211> 162
 <212> nucleic acid
 <213> Glycine max

 <400> 1665

 aactgaacaa gggtttctct ttctctttct ctgtctgctt cttcactttc tctcgtttca 60
 atcgaaaaaa atcatgggca gaaaattctt cgtcggtggc aactggaaat gcaatgggac 120
 cactgaggag gtgaagaaga ttgttactac tttaaatgaa gc 162

<210> 1666
 <211> 150
 <212> nucleic acid
 <213> Glycine max

 <400> 1666

 cgaacaaggg tttctcttct tctttctctg tctgcttctt cactttctct cgtttcaatc 60
 gaaaaaaatc atgggcagaa aattcttcgt cgggtggcaac tggaaatgca atgggaccac 120
 tgaggaggtg aagaagattg ttactacttt 150

<210> 1667
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 1667

<400> 1670
 cttattggag anaatgatga gtttataggg aaganagctg cctatgcttt gagccaaggt 60
 cttgggggtga ttgcatgcat tggagacttg ttagaagaaa gggaggctgg aaaaactact 120
 gatgtttgtn ttcagcaatt gaaggcttat gcagacgcag ttgctagttg ggacaacatt 180
 gttattgcat atgaacctgt atggggccatt ggaacgggca aagtcgccac tccccaacaa 240
 gctcaggaag tacatgtagc tggtcgggat t 271

<210> 1671
 <211> 322
 <212> nucleic acid
 <213> Glycine max

<400> 1671
 cttcgatggc ggcaacctca acatcactgg cttctcaact ctacattggc ctgcgccgcc 60
 cctgcctcaa gctcgattct ttcaattctc aatctttctc tctcttcgac cctaattctc 120
 gcctatccct ctctccaccc aaacctcac gcgcggtcat cgccatggcc ggcaccggga 180
 agttctttgt tgggtggcaac tgggaagtgt acggaacaaa agactcaatc agcaagcttg 240
 ttgctgactt gaacaatgca aaattggagc ctgatgttga tgttgtcggt gcacctccct 300
 tcctctacat cgatcaagtg aa 322

<210> 1672
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 1672
 gcaacctcaa catcactggc ttctcaactc tacattggcc tgcgccgcc ctgcctcaag 60
 ctcgattctt tcaattctca atctttctct ctcttcgacc ctaattctcg cctatccctc 120
 tctccaccca aacctcacg cgccgtcatc gccatggccg gcaccgggaa gttctttgtt 180
 ggtggcaact ggaagtgtaa cggaacaaaa gactcaatca gcaagcttgt tgctgacttg 240
 aacaatgca 249

<210> 1673
 <211> 257

<212> nucleic acid
<213> Glycine max

<400> 1673

ggcaacctca acatcactgg cttctcaact ctacattggc ctgcgcgcc cctgcctcaa 60
gctcgattct ttcaattctc aatctttctc tctcttcgac cctaattctc gcctatccct 120
ctctccaccc aaacctcac gcgcggtcat cgccatggcc ggcaccggga agttctttgt 180
tggtggcaac tggaagtgtg acggaacaaa agactcaatc agcaagcttg ttgctgactt 240
gaacaatgca aaattgg 257

<210> 1674
<211> 275
<212> nucleic acid
<213> Glycine max

<400> 1674

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tgcgcgcgcc ctgcctcaag ctcgattctt tcaattctca atctttctct ctcttcgacc 120
ctaattcttcg cctatccctc tctccaccca aacctcacg cgccgtcatc gccatggccg 180
gcaccgggaa gttctttgtt ggtggcaact ggaagtgtaa cggaacaaa agactcaatc 240
agcaagcttg ttgctgactt gaacaatgca aaatt 275

<210> 1675
<211> 287
<212> nucleic acid
<213> Glycine max

<400> 1675

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tacattggcc tgcgcgcgcc ctgcctcaag ctcgattctt tcaattctca atctttctct 120
ctcttcgacc ctaattcttcg cctatccctc tctccaccca aacctcacg cgccgtcatc 180
gccatggccg gcaccgggaa gttctttgtt ggtggcaact ggaagtgtaa cggaacaaaa 240
gactcaatca gcaagcttgt tgcctgactt aacaatgcaa aattgga 287

<210> 1676
<211> 272

<212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (122), (149), (235)
 <223> unsure at all n locations

 <400> 1676

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 tgccctcaagc tcgattcttt caattctcaa tctttctctc tcttcgaccc taatcttcgc 120
 cnatccctct ctccacccaa accctcacna caccgtcatc gccatggccg gcaccgggaa 180
 gttctttggt ggtggcaact ggaagtgtaa cggaacaaaa gactcaatca gcaancttgt 240
 tgctgacttg aacaatgcaa aattggagcc tg 272

<210> 1677
 <211> 287
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (118), (233)
 <223> unsure at all n locations

 <400> 1677

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 tacattggcc tgcgccgcc ctgcctcaag ctgcattctt tcaattctca atctttcnct 120
 ctcttcgacc ctaatcttcg cctatccctc tctccacca aacctcacg cgccgtcatc 180
 gccatggccg gcaccgggaa gttctttggt ggtggcaact ggaagtgtaa cgnaacaaaa 240
 gactcaatca gcaagcttgt tgctgacttg aacaatgcaa aattgga 287

<210> 1678
 <211> 274
 <212> nucleic acid
 <213> Glycine max

 <400> 1678

 tgtttttggt cttcgatggc ggcaacctca acatcactgg cttctcaact ctacattggc 60
 ctgcgccgcc cctgcctcaa gctgcattct ttcaattctc aatctttctc tctcttcgac 120

<400> 1681

cactgtgttg ctgtttttgt ttttcgatgg cggcaacctc aacatcactg gcttctcaac 60

tctacattgg cctgcgcgcg ccctgcctca agctcgattc tttcaattct caatctttct 120

ctctgttcga ccctaattct cgctatccc tctctccacc caaacctca cgcgccgtca 180

tcgccatggc cggcaccggg aagttctttg ttggtggcaa ctggaagtgt aacgaaacaa 240

aagactcaat cag 253

<210> 1682

<211> 240

<212> nucleic acid

<213> Glycine max

<400> 1682

ctcgagcgtt ttgttcttcg atggcggcaa cctcaacatc actggcttct caactctaca 60

ttggcctgcg ccgcccctgc ctcaagctcg attctttcaa ttctcaatct ttctctctct 120

tcgaccctaa cttcgctat ccctctctcc acccaaacc tcacgcgccg tcatcgccat 180

ggccggcacc gggaagttct ttgttggtgg caactggaag tgtaaggaac aaaagactca 240

<210> 1683

<211> 240

<212> nucleic acid

<213> Glycine max

<400> 1683

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cattggcctg cgcgcgccct gcctcaagct cgattctttc aattctcaat ctttctctct 120

cttcgacctt aatcttcgcc tatccctctc tccacccaaa ccctcacgcg ccgtcatcgc 180

catggccggc accgggaagt tctttgttgg tggcaactgg aagtgtaacg gaacaaaaga 240

<210> 1684

<211> 198

<212> nucleic acid

<213> Glycine max

<400> 1684

ctgacttgaa cagtgaaca ttggagtctg atgttgatgt tgttggtgca cctccctttg 60

[illegible]

<400> 1685

<400> 1686

<400> 1687

The first part of the book is devoted to the study of the properties of the function $f(x)$. In the second part, the author discusses the problem of the existence of solutions of the equation $f(x) = y$.

ccggctcgac	ccacgagtaa	gcccacgcgt	ccgacggctg	cgagaagacg	acagaagggg	60
attgtagaac	tgaacaaggg	tttctctttc	tctttctctg	tctgcttctt	cactttctct	120
cgtttcaatc	gaaaaaaatc	atgggcagaa	aattcttcgt	cggtggcaac	tggaaatgca	180
atggggaccac	tgaggagggtg	aagaagattg	ttactacttt	aaatgaagct	aaagtccttg	240
gagaagatgt	tgtagaagtt	gttgtgagcc	ctccttttgt	gttccttcct	tttgtaaaaa	300
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cttatac						367

<400>	1693
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tctgcttctt	cactttctct	cgtttcaatc	gaaaccaaaa	caaaaacatg	ggcagaaaat	120
tcttcgtcgg	tggcaactgg	aaatgcaatg	ggaccactga	ggaggtaaag	aagattgtta	180
ctactttgaa	tgaggctaaa	gtccctggag	aagatgtcgt	agaagttggt	gtgagccctc	240
cttttgtggt	ccttcctggt	gtaaaaagtt	tgctgcgccc	tgatttccat	gtttcggcac	300
aaaactgttg	ggttcgcaaa	ggtggtgctt	ataccggtga	ggttagtgct	gaaatgcttg	360
ttaatttggg	a					371

<400>	1694
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594

[illegible]

<400> 1699

<400>	1700
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<400> 1701

597

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aattcttcgt cgggtggcaac tggaaatgca atgggaccac tgaggaggtg aagaagattg 180
ttactacttt aaatgaagct aaagtccctg gagaagatgt tgtacaagtt gttg 234

<210> 1702
<211> 342
<212> nucleic acid
<213> Glycine max

<400> 1702

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tagaactgaa caagggtttc tctttctctt tctctgtctg cttcttcact ttctctcgtt 120
tcaatcgaaa aaaatcatgg gcagaaaatt cttcgtcggg ggcaactgga aatgcaatgg 180
gaccactgag gaggtgaaga agattgttac tactttaaat gaagctaaag tccctggaga 240
agatgttgta gaagttgttg tgagccctcc ttttgtgttc cttccttttg taaaaagttt 300
gctgcgccct gatttccatg tctccggcca aaattgttgg gt 342

<210> 1703
<211> 354
<212> nucleic acid
<213> Glycine max

<400> 1703

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ctcgtttcaa tcgaaaccaa aacaaaaaca tgggcagaaa attcttcgtc ggtggcaact 120
ggaaatgcaa tgggaccact gaggaggtaa agaagattgt tactactttg aatgaggcta 180
aagtccttgg agaagatgtc gtagaagttg ttgtgagccc tccttttgtg ttccttcctg 240
ttgtaaaaag tttgctgcgc cctgatttcc atgtttcggc acaaaaactgt tgggttcgca 300
aaggtggtgc ttataccggt gaggttagtg ctgaaatgct tgtaatttg ggaa 354

<210> 1704
<211> 291
<212> nucleic acid
<213> Glycine max

<400> 1704

<211> 403
 <212> nucleic acid
 <213> Glycine max

<400> 1707

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agtacggctg cgagaagacg acagaagggg atgagtttat agggaagaaa gctgcctatg   60
ctttgagcca aggtcttggg gtgattgcat gcattggaga attgttagaa gaaagggagg  120
ctggaaaaac ttttgatgtt tgttttcagc aattgaaggc ttatgcagac gcagttgcta  180
gttgggacaa cattgttatt gcatatgaac ctgtatgggc cattggaacg ggcaaagtgg  240
ccactcccca acaagctcag gaagtacatg tagctgttcg ggattggcta aaaaagaatg  300
tctcagatga agttgcgtct aaaacacgaa ttatttatgg agggctctgta aatggaagca  360
acagtgtgta actggcaaag caagaagata ttgatggatt tct                               403
  
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<210> 1708
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (22), (28), (40), (51), (63), (72) ... (73), (78), (81), (85),
 (99), (102) ... (103), (164), (167), (215), (220),
 (233) ... (234), (239), (253)
 <223> unsure at all n locations

<400> 1708

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cttttcttct ctctcaacaa cntcaccngt cttcctcctn gatcatgtcc nacttcaagg   60
gcnagtacca tnntgagntg ntctnctatg ctgcgtacnt cnncactcct ggaaagggta  120
tttcttgctg ctgacgagtc aacagggaca acgggcaagc gttnggncag catcagagta  180
gagaacattg aatccaacag gcgagctctt agggngcagn ctttcactgc ccnngtgtnc  240
ttcaatatct cant                               254
  
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<210> 1709
 <211> 283
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (50)

<223>

<400> 1709

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tgccagtgt acttatattg gcaccccagg acttggatatg cttgcagctg atgagttaac 120
cggcacaatt gggaaacgtt tggcgagctt caacgtggag aatgttgaaa cgaacaggcg 180
cattcttcgt gagctcctat tcactgctcc cggttgtctt gagtgccctca gtggtgtcat 240
cttgtttgag gaaaccctct accaaatatc agctgcagga gta 283

<210> 1710

<211> 268

<212> nucleic acid

<213> Glycine max

<400> 1710

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ctcaacggtg gggacgtcat gaaggtgtac aaatatgttc aggagcacia gtttgccatc 120
ccggccgtga acgtgacatc gtcgtcgacg acgaatgccg ctctgcaggc cgcccgcgac 180
atcaagtcgc ccatcatcat ccagacatca aatggcgggc cgccttcta cgctggcaaa 240
ggtattgaca acaagaacca gaacgcct 268

<210> 1711

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 1711

ggacgagaac atccccaagg cgcaaagcgc gttgctggtg aggtgcaagg cgaattctga 60
ggctactctt ggaacttaca aggggggatgc cacgcttggg gaaggggctt ctgagtctct 120
tcatgttaag gattataagt actaagagag aggtgtgaga ttggttcttt tggaatggaa 180
ttgtttgttt ctttgggcct gttttggata ttcaagagtg tttttcaaaa aatttctact 240
gaaaaggaaa gaaattctcc a 261

<210> 1712

<211> 277

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (2) ... (3), (28), (90), (99), (103), (120), (128), (137), (145),
(164), (168), (173), (175), (186), (191), (196), (201), (205),
(208), (217), (224) ... (225), (229) ... (230), (238), (272)

<223> unsure at all n locations

<400> 1712

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aactacagct actgatcaat cgaagttggn gttgtttgna ganactagtg cgagtaggan 120

tcggtatnat ggggtacnaca accgnatttc ttgttgataa gtantatngt ggntngactc 180

ttcccngaatt natcgnttgg nattnacngg atgtttacca gtgnnccctnn atggccantt 240

agtcattccag ggtggttggtg aactggcaac cnggaag 277

<210> 1713

<211> 276

<212> nucleic acid

<213> Glycine max

<400> 1713

ctttaccagt cgacaacaga tggaaataaa tttgtggatt gcctccgcga tcagaacatt 60

gtgcccggca tcaaagttga taagggtctg gtccctctgc caggggtcaaa caatgagtct 120

tggtgccaaag ggctggatgg ttggcttcta ggtctgctga atactacaag caagggtgctc 180

gatttgccaa gtggaggaca gttgttagca ttccatgtgg tccttctgca ttagctgtcc 240

cggaagcagc gtgggggctt gcacgttatg ctgcta 276

<210> 1714

<211> 256

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (83), (105), (107), (110) ... (111), (131), (137), (143), (147),
(151), (158)

<223> unsure at all n locations

<400> 1714

agttcccagt attaactgat catatactta catttggtga aggacagatt aaatttgaag 60

<400> 1717
 acaccaaatt aacaaagcct tcttttttctt gtgtgatctc acaagcccct aaaggccacc 60
 atgtcttctt tcaagagcaa attccaagat gagttgattg ccaatgctag ttacattggc 120
 accccaggaa agggatatct tgcggttgac gagtcaacag ggacaattgg gaagcgtttg 180
 gcgagcatca acgtggagaa tgttgaaaca aacaggcgca ttcttcgtga gtcctattc 240
 actgcccctg gttgtcttga gcg 263

<210> 1718
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1718
 cacaccaaatt taacaaagcc ttctttttctt tgtgtgatct cacaagcccc taaaggccac 60
 catgtcttcc ttcaagagca aattccaaga tgagttgatt gccaatgcta gttacattgg 120
 cccccagga aacggatatcc ttgcggctga cgagtcaaca gggacaattg ggaagcgttt 180
 ggcgagcatc aacgtggaga atgttgaacc aaaaagggga atcctccgtg agtcctatt 240
 cactgcccct gggttgtct 258

<210> 1719
 <211> 337
 <212> nucleic acid
 <213> Glycine max

<400> 1719
 ctcaagtcca acctaccct ttttcttctc ccaccaactt caccgtcttc ttctcgatc 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc 120
 actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgctg ctcttaggga gctgcttttc 240
 accgctcccg gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac 300
 cagagcacag ctgcaggcaa gccctttgtg gaagtct 337

<210> 1720
 <211> 283
 <212> nucleic acid

<213> Glycine max

<400> 1720

cctcgatcat gtctcacttc aagggcaagt accatgatga gcttatcgcc aatgctgcgt 60
acattggcac tcttggaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 120
agcggttggc cagcatcagt gtagagaaca ttgaatccaa caggcgagct cttagggagc 180
tgcttttcac tgctcctggg gttcttcaat atctcagtgg tgtcatcctc tttgaggaaa 240
ccctctacca gagcacagct gcaggcaagc cctttgtgaa tgt 283

<210> 1721

<211> 382

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (351), (366)

<223> unsure at all n locations

<400> 1721

ctcccaccaa cttcacgcgc ttcttctctg atcatgtctc acttcaaggg caagtaccat 60
gatgagctta ttgccaatgc tgcttacatt ggcaattcct ggaaagggat tcttgctgct 120
gatgagtcaa caggggacaat tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa 180
tccaacaggc gtgctcttag ggagctgctt ttcacgcgc cgggtgctct taaatatctc 240
agtgggtgtca tcctctttga ggaaactctc taccagagca cagctgcagg caagcccttt 300
gtggaagtct tgaaggagct ggtgtgcttc tggcacaagg tgaccaaggc nagttgactt 360
ctggantaat ggagaaccac at 382

<210> 1722

<211> 314

<212> nucleic acid

<213> Glycine max

<400> 1722

aggagaatgg cctgggtccc attggtgagc ctgagatcct tgttgatgga cctcatgaca 60
ttcacaagtg tgccgcgcgc accgagcgtg tccttgagc atgctacaag gctttgaatg 120
atcaccatgt ccttcttgag ggtaccctat tgaagccaaa catggtcacc cctggatccc 180

<400> 1725
gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc tcccgggtgct 60
cttaaataatc tcagtgggtgt catcctcttt gaggaaactc tctaccagag cacagctgca 120
ggcaagccct ttgtggaagt cttgaaggag gctgggtgtgc ttcttggcat caaggttgac 180
aagggcanag ttgagcttgc tggcactaat ggagaaacca ccactcaggg tctagatggc 240
cttggtcagc gttgcgcaa gtactatgaa gccgggtgcac gttttgcc 288

<210> 1726
<211> 319
<212> nucleic acid
<213> Glycine max
<220>
<221> unsure
<222> (70), (80), (166), (197), (215), (313)
<223> unsure at all n locations

<400> 1726
gaacgcctat ggcttgcgct agttacgctg tcatatgccca ggagaatggc ctggttccca 60
ttgttgagcn tgagatcctn gttgatggac ctcatgacat tcacaagtgt gccgccgtca 120
ccgagcgtgt ccttgcagca tgctacaagg ctttgaatga tcaccntgtc cttcttgagg 180
gtaccctatt gaagccnaac atggtcaccc ctggntccca atctgctaag gtttcccctc 240
aggtggttgc cgagcacact gtcagagccc ttcagagaac cgtgcctgct gcagttcctg 300
ctgtcgtttt ctngtctgg 319

<210> 1727
<211> 276
<212> nucleic acid
<213> Glycine max

<400> 1727
cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg 60
aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 120
cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 180
tggtgttctt caatatctca gtgggtgcat cctctttgag gaaaccctct accagagaca 240
gctgcaggca agccctttgt gaatgtcttg aaggaa 276

<210> 1728
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 1728

 cgagctctta gggagctgct tttcactgct cctgggtgttc ttcaatatct cagtgggtgtc 60
 atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 120
 ttgaaggaag ctgggtgtgct tcctggcatc aagggttgaca agggcacagt cgagcttgct 180
 ggaactaatg gagaaccac cactcagggc ctagatggcc ttggtcagcg ttgtgccaag 240
 tactacgaag ctgggtgcacg ttt 263

<210> 1729
 <211> 285
 <212> nucleic acid
 <213> Glycine max

 <400> 1729

 tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 60
 agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 120
 gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 180
 gtgttcttca atatctcagt ggtgtcatcc tctttgagga aaccctctac cagagcacag 240
 ctgcaggcaa gccctttgtg aatgtcttga aggaagctgg tgtgc 285

<210> 1730
 <211> 278
 <212> nucleic acid
 <213> Glycine max

 <400> 1730

 gggatttctt gctgctgatg agtcaacagg gacaattggc aagcgtttgg ccagcatcag 60
 tgtagagaat gttgaatcca acaggcgtgc tcttagggag ctgcttttca ccgctcccgg 120
 tgctcttaaa tatctcagtg gtgtcatcct ctttgaggaa actctctacc agagcacagc 180
 tgcaggcaag ccctttgtgg aagtcttgaa ggaggctggg gttcttcctg gcatcaaggt 240
 tgacaagggc acagttgagc ttgctggcac taatggag 278

<210> 1731
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1731

ctcttaggga gctgcttttc actgctcctg gtgttcttca atatctcagt ggtgtcatcc 60
 tctttgagga aacctctac cagagcacag ctgcaggcaa gccctttgtg aatgtcttga 120
 aggaagctgg tgtgcttcct ggcacaaagg ttgacaaggg cacagtcgag cttgctggaa 180
 ctaatggaga aaccaccact cagggctctag atggccttgg tcagcgttgt gccaaagtact 240
 acgaagctgg tgcacgtttt gccaa 265

<210> 1732
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1732

cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca 60
 ttggcactcc tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc 120
 gtttggccag catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc 180
 ttttcaccgc tcccgggtgt cttaaataac tcagtgggtgt catcctcttt gagggaaactc 240
 tctaccagag cacagctgca ggca 264

<210> 1733
 <211> 349
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (123)
 <223>

<400> 1733

tctagatggc cttgggtcagc gttgtgccaa gtgctacgaa gctgggtgcac gttttgccaa 60
 atggcgtgca gtgctgaaga ttgggtccaa cgagccatct gagctgtcta tccatgagaa 120

cgncctatgg cttggctaga tacgctgtca tatgccagga gaatggcctg gttcccattg 180
 ttgagcctga gatccttggt gatggacctc atgacattca caagtgtgcc gccgtcaccg 240
 agcgtgtcct tgcagcatgc tacaaggctt gaatgatcac catgtccttc ttgaggggtac 300
 ctatgaagcc aaaccatggt caccctggat cccaatctgt aagggtccc 349

<210> 1734
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1734

tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca gtgtagagaa 60
 tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg gtgctcttaa 120
 atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag ctgcaggcaa 180
 gccctttgtg gaagtcttga aggaggctgg tgttcttcct ggcataaagg ttgacaaggg 240
 cacagttgag cttgctggca ctaatggaga aac 273

<210> 1735
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1735

atcatgtctc acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt 60
 ggcactcctg gaaaggggtat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt 120
 ttggccagca tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt 180
 ttcactgctc ctggtgttct tcaatattca gtggtgtcat cctctttgag gaaaccctct 240
 accagagtac agctgcag 258

<210> 1736
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 1736

cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcaactcctgg 60

aaaggggtatt	cttgctgctg	atgagtcac	agggacaatt	ggcaagcggt	tggccagcat	120
cagtgtagag	aacattgaat	ccaacaggcg	agctcttagg	gagctgcttt	tcactgctcc	180
tgggtgttctt	caatatctca	gtgggtgtcat	cctctttgag	gaaaccctct	accagagcac	240
agctgcaggc	aagccctttg	tgaatgt				267

<210>	1737
<211>	259
<212>	nucleic acid
<213>	Glycine max

<400>	1737
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ggcgagctct	tagggagctg	cttttcactg	ctcctggtgt	tcttcaatat	ctcagtgggtg	60
tcatcctctt	tgaggaaaacc	ctctaccaga	gcacagctgc	aggcaagccc	tttgtgaatg	120
tcttgaagga	agctggtgtg	cttcctggca	tcaaggttga	caagggcaca	gtcgagcttg	180
ctggaactaa	tggagaaaacc	accactcagg	gtctagatgg	ccttggtcag	cgttgtgcc	240
agtactacga	agctggtgc					259

<210>	1738
<211>	270
<212>	nucleic acid
<213>	Glycine max

<400>	1738
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tgcgtacatt	ggcactcctg	gaaaggggat	tcttgctgct	gatgagtcaa	cagggacaat	60
tggcaagcgt	ttggccagca	tcagtgtaga	gaacattgaa	tccaacaggc	gagctcttag	120
ggagctgctt	ttcactggtc	ctggtgttct	tcaatatctc	agtgggtgtca	tcctctttga	180
ggaaaccctc	taccagagca	cagctgcagg	caagcccttt	gtgaatgtct	tgaaggaagc	240
tggtgtgctt	cctggcatca	aggttgacaa				270

<210>	1739
<211>	357
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (42)...(43),(66)
<223>      unsure at all n locations
```

<400> 1739
 gtccaaccta cccctttttc ttctcccacc aacttcaccg tnnctttcct cgatcatgtc 60
 tcaactncaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120
 tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240
 tcccgggtgct cttaaataatc tcagtgggtg catcctcttt gaggaaatct ctaccagcac 300
 agctgcaggc aagccctttg tggaatcttg aaggaggctg gtgtgcttcc tggcatc 357

<210> 1740
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 1740
 atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 60
 ttgaaggaag ctggtgtgct tcttggcatc aaggttgaca agggcacagt cgagcttgct 120
 ggaactaatg gagaaaccac cactcagggt ctagatggcc ttggtcagcg ttgtgccaag 180
 tactacgaag ctggtgcacg ttttgccaaa tggcgtgcag tgctgaagat tgggtcccaac 240
 gagccatctg agctg 255

<210> 1741
 <211> 292
 <212> nucleic acid
 <213> Glycine max

<400> 1741
 atcctctttg aggaaaccct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc 60
 ttgaaggaag ctggtgtgct tcttggcatc aaggttgaca agggcacagt cgagcttgct 120
 ggaactaatg gagaaaccac cactcagggt ctagatggcc ttggtcagcg ttgtgccaag 180
 tactacgaag ctggtgcacg ttttgccaaa tggcgtgcag tgctgaagat tgggtcccaac 240
 gagccatctg agctgtctat cccatgagaa cgctatggct tggctagata cc 292

<210> 1742
 <211> 292

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (19), (29), (291)
<223> unsure at all n locations

<400> 1742

ctcttttttct tctctctcna caacttcanc ttcttctctcc tcgatcatgt ctcaattcaa 60
gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
tattcttget gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
tcttcaatat ctcagtggtg tcatcctctt tgaggaaacc ctctaccagg ng 292

<210> 1743
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 1743

gtggttgccg agcacactgt cagagccctt cagagaaccg tgcttgccgc agttcctgct 60
gtcgttttct tgtctggtgg ccagagttag gaggaggcat ctgtcaacct caacgccatt 120
aaccaggtca atgggaagaa gccatggtca ctctctttct cctttggaag ggcacttcaa 180
cagagcacc ctaaggcatg gggcggaata gaagagaatg tgaagaaggc tcaggaagcc 240
cttttggtaa gagccaaggc taact 265

<210> 1744
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 1744

tgcagatgag cttatcgcca atgctgcgta cattggcact cctggaaagg gtattcttgc 60
tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagt tagagaacat 120
tgaatccaac aggcgagctc ttagggagct gcttttcaact gctcctggtg ttcttcaata 180
tctcagtggt gtcctctctt ttgaggaaac cctctaccag agcacagctg caggcaagcc 240

262

agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 60
gtattcttgc tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagtg 120

[illegible]

taatggagaa accaccactc aggggtctaga tggccttggt cagcgttggtg ccaagtacta 180
 cgaagctggt gcacgttttg ccaaattggcg tgcagtgtcg aagattgggtc ccaacgagcc 240
 atctgagctg tcta 254

<210> 1751
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 1751

caacaacttc accttcttcc tctctgatca tgtctcactt caagggcaag taccatgatg 60
 agcttatcgc caatgctgcg tacattggca ctcttggaag gggattctt gctgctgatg 120
 agtcaacagg gacaattggc aagcgtttgg ccagcatcag tgtagagaac attgaatcca 180
 acaggcgagc tcttagggag ctgcttttca ctgctcctgg tgttcttcaa tatctcagtg 240
 gtgtcactct ctttgaggaa acctctt 267

<210> 1752
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (250)
 <223>

<400> 1752

cgatcatgtc tcaacttcaag ggcaagtacc atgatgagct tattgtcaat gctgcttaca 60
 ttggcactcc tggaaagggt attcttgctg ctgatgagtc aacagggaca attggcaagc 120
 gtttgccag catcgtgtag agaattgtga atccaacagg cgtgctctta gggagctgct 180
 ttccaccgct cccggtgctc ttaaatactc cagtgggtgct atcctctttg aggaaactct 240
 ctaccagagn acagctgcag g 261

<210> 1753
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (242)
 <223>

<400> 1753

gggaggaggc atccgtcaac ctcaacgccca ttaaccaggt caatgggaag aagccatggt 60
 cactctcttt ctctcttgga agggcacttc aacagagcac ccttaaggca tggggcgga 120
 aagaagagaa tgtgaagaag gctcaggaag cccttttggt aagagccaag gctaactcag 180
 aggcaactct gggaacctac aagggttaact cacagcttgc tgatggtgcc tcagagagcc 240
 tncatgtttc gaactacagc tactgat 267

<210> 1754
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 1754

ggacaattgg caagcgtttg gccagcatca gtgtagagaa tggtgaatcc aacaggcgtg 60
 ctcttaggga gctgcttttc accgctcccg gtgctcttaa atatctcagt ggtgtcatcc 120
 tctttgagga aactctctac cagagcacag ctgcaggcaa gccctttgtg gaagtcttga 180
 aggaggctgg tgttcttctt ggcatcaagg ttgacaaggg cacagttgag cttgctggca 240
 ctaatggaga aaccaccact 260

<210> 1755
 <211> 289
 <212> nucleic acid
 <213> Glycine max

<400> 1755

ctaacctacc tctttttctt ctctctcaac aacttcacct tcttctctct cgatcatgtc 60
 tcacttcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
 tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttcaactgc 240
 tcttggtggt cttcaatatc tcagtgggtg catcctcttt gaggaaacc 289

<210> 1756
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1756

ctcttaggga gctgcttttc acgactcctg gtgtttcttca atatctacag tgggtgcatc 60
 ctctttgagg aaacctctta ccagagcaca gctgcaggca agccctttgt gaatgtcttg 120
 aaggaagctg gtgtgcttcc tggcatcaag gttgacaagg gcacagtcga gcttgctgga 180
 actaatggag aatccaccac tcagggtcta gatggccttg gtcagcgctg tgccaagtac 240
 tacgaagctg gtgcacgttt tgcca 265

<210> 1757
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1757

tctcagtggg gtcacacctt ttgaggaaac cctctaccag agcacagctg caggcaagcc 60
 ctttgtgaat gtcttgaagg aagctggtgt gcttctctggc atcaaggctg acaagggcac 120
 agtcgagctt gctggaacta atggagaaac caccactcag ggtctagatg gccttggtca 180
 gcgttctgcc aagtactacg aagctggtgc acgttttgcc aaatggcgctg cagtgtctg 238

<210> 1758
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 1758

tacctctttt tcttctctct caacaacttc accttcttcc tctctgatca tgtctcactt 60
 caagggcaag taccatgatg agcttatcgc caatgctgcg tacattggca ctcttgga 120
 gggatttctt gctgctgatg agtcaacagg gacaattggc aagcgtttgg ccagcatcag 180
 tgtagagaac attgaatcca acaggcgagc tcttagggag ctgcttttca ctgctcctgg 240
 tggttcttcaa tatctcagtg gtgtcatcct ctttgaggaa 280

<210> 1759
 <211> 256

<212> nucleic acid
<213> Glycine max

<400> 1759

ccagcatcag tgtagagaat gttgaatcca acaggcgtgc tcttagggag ctgcttttca 60
ccgctcccgg tgctcttaaa tatctcagtg gtgtcatcct ctttgaggaa actctctacc 120
agagcacagc tgcaggcaag ccctttgtgg aagtcttgaa ggaggctggg gtgcttcctg 180
gcatcaaggt tgacaagggc acagttgagc ttgctggcac taatggagaa accaccactc 240
agggtctaga tggctt 256

<210> 1760
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1760

tcttttttctt ctctctcaac aacttcacct tcttctcctt cgatcatgtc tcacttcaag 60
ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc tggaaagggg 120
attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag catcagtgtg 180
gagaacattg aatccaacag gcgagctctt agggagctgc ttttactgc tcttggtgtt 240
cttcaatata tcagtgggtg catcctcttt gagg 274

<210> 1761
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 1761

tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 60
catcagtgtg gagaatcttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 120
tcccgggtgct cttaaataatc tcagtgggtg catcctcttt gaggaaactc tctaccagag 180
cacagctgca ggcaagccct ttgtggaagt cttgaaggag gctgggtgtt ttcctggcat 240
caaggttgac 250

<210> 1762
<211> 256

00337403-012500

<212> nucleic acid
<213> Glycine max

<400> 1762

ccatgatgag cttattgcc aatgctgctta cattggcact cctggaaagg gtattcttgc 60
tgctgatgag tcaacaggg acaattggcaa gcgtttgcc gcatcagtgt agagaatgtt 120
gaatccaaca ggcgtgctct tagggagctg cttttcaccg ctcccgggtgc tcttaaatat 180
ctcagtgggtg tcctctctt tgaggaaact ctctaccaga gcacagctgc aggcaagccc 240
tttgtggaag tcttga 256

<210> 1763
<211> 295
<212> nucleic acid
<213> Glycine max

<400> 1763

tctttttctt ctctctcaac aacttcacct tcttcctcct cgatcatgtc tcacttcaac 60
ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc tggaaaggggt 120
attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag catcagtgt 180
gagaacattg aatccaacag gcgagctctt aggggcgcgc ttttactgc tcctgggtgtt 240
cttcaatata tcagtgggtg catcctcttt gatgaaccct ctaccagagc acagc 295

<210> 1764
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1764

ctcgagccgc ttcttcctcc tcgatcatgt ctcaattcaa gggcaagtac catgatgagc 60
tcctcgccaa tgctgcgtac attggcactc ctggaaaggg tattcttgct gctgatgagt 120
caacagggac aattggcaag cgtttggcca gcatcagtgt agagaacatt gaatccaaca 180
ggcgagctct tagggagctg cttttcactg ctctgggtgt tcttcaatat ctcagtgggtg 240
tcctctctt tgaggaaacc ctctaccag 269

<210> 1765
<211> 252

aagccctttt ggtaagagcc a 261

<210> 1768
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 1768
 attcacaagt gtgccgccgt caccgagcgt gtccttgacg catgctacaa ggctttgaat 60
 gatcaccatg tcctttcttga gggtagccta ttgaagccaa acatgggtcac ccctgggatcc 120
 caatctgcta aggtttcccc tcaggtgggt gccgagcaca ctgtcagagc ccttcagaga 180
 actgtgectg ctgcagttcc tgetgtcgtt ttcttgtctg gtggccagag tgaggaggag 240
 gcatccgtca acctcaacgc cattaacca 269

<210> 1769
 <211> 294
 <212> nucleic acid
 <213> Glycine max

<400> 1769
 acctacctct ttttcttctc tctcaacaac ttcaccttct tcctcctcga tcatgtctca 60
 cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gctctcctgt 120
 gaaaggggat tcttgtctgt gatgagtcaa cagggaacaat tggcaagcgt ttggccagca 180
 tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
 ctggtgttct tcaatatctc agtgggtgtca tcctctttga ggaaacctct acca 294

<210> 1770
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 1770
 tgaatccaac aggcgagctc ttagggagct gcttttcact gctcctgggt ttcttcaata 60
 tctcagtggg gtcacacctc ttgaggaaac cctctaccag agcacagctg caggcaagcc 120
 ctttgtgaat gtcttgaagg aagctgggtg gcttcctggc atcaagggtg acaagggcac 180
 agtcgagctt gctggaacta atggagaaac caggactcag ggtctagatg gccttgggtca 240

gcgttg

248

<210> 1771
<211> 267
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (24)
<223>

<400> 1771

tggatctcat gacattcaca agtntgctgc cgtcaccgag cgtgtccttg cagcatgcta 60
caaggctttg aatgatcacc acgtccttct tgagggtacc ctattgaagc caaacatggt 120
caccgccgga tccaattctg ctaagggttc ccctcagggtg gttgcggagc aactgttag 180
agcccttcag agaaccgtgc ctgctgcagt tcttctatc gttttcttgt ctggtgggca 240
gagtgaggag gaggcacccg ttaacct 267

<210> 1772
<211> 285
<212> nucleic acid
<213> Glycine max

<400> 1772

ctctaacctt cctctttttc ttctctctca acaacttcac cttcttcctc ctgatcatg 60
tctcacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
agcatcagt tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact 240
gctcctggtg ttcttcaata tctcagtggg gtcacccctt ttgag 285

<210> 1773
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 1773

ctgttagagc ccttcagaga accgtgctg ctgcagttcc tgetatcgtt ttcttgtctg 60
gtgggcagag tgaggaggag gcatccgtta acctcaatgc cattaaccag gtcaatggaa 120

agaagccatg gtcactctct ttctcctttg gaagggcact tcaacagagc acccttaagg 180
catggagtgg aaaagaggag aatgtgaaga aggcctcagga agcccttttg gtaagagcca 240
aggccaactc agaggcaact ctgggaa 267

<210> 1774
<211> 285
<212> nucleic acid
<213> Glycine max

<400> 1774

tctaacctac ctctttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt 60
ctcacttcaa gggcaagtac catgatgagc ttatcgccaa tgetgcgtac attggcactc 120
ctggaaaggg tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca 180
gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 240
ctcctggtgt tcttcaatat ctcagtgggtg tcctcctctt tgagg 285

<210> 1775
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 1775

ctaacctacc tctttttctt ctctctcaac aacttcacct tcttctctct cgatcatgtc 60
tcacttcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
tggaaggggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttcactgc 240
tcttggtgtt cttcaatatc tcagtgggtg catcctcttt gagg 284

<210> 1776
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (46)
<223>

<400> 1776
 cagagaaccg tgccctgctgc agttcctgct atcgttttct tgtctngtgg gcagagtgag 60
 gaggaggcat ccgttaacct caatgccatt aaccagggtca atggaaagaa gccatggtca 120
 ctctctttct cctttggaag ggcacttcaa cagagcacc ctaaggcatg gagtggaaaa 180
 gaggagaatg tgaagaaggc tcaggaagcc cttttggtaa gagccaaggc taactcagag 240
 gcaactctgg gaactacaag g 261

<210> 1777
 <211> 274
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (6), (8), (80), (142)
 <223> unsure at all n locations

<400> 1777
 tgccctnengc agttcctgct atcgttttct tgtctggtgg gcagagtgag gaggaggcat 60
 ccgttaacct caatgccatn aaccagggtca atggaaagaa gccatggtca ctctctttct 120
 cctttggaag ggcacttcaa gnagcaccct taaggcatgg agtggaaaag aggagaatgt 180
 gaagaaggct caggaagccc ttttggttaag agccaaggcc aactcagagg caactctggg 240
 aacctacaag ggtaactcaa agcttgctga tggt 274

<210> 1778
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 1778
 gtctcacttc aagggaagt accatgatga gcttatcgcc aatgctgcgt acattggcac 60
 tcctggaacc ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 120
 cagcatcagt gtagagaaca ttgaatccaa caggcgagct cttagggagc tgcttttcac 180
 tgctcctggt gttcttcaat atctcagtgg tgcatectc tttgaggaaa ccctctacca 240
 gagcacag 248

<210> 1779
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1779

aacctacctc ttttttttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc 60
 acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaaggggtat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca 180
 tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcaactgctc 240
 ctggtgttct tcaatatctc agtgggtgtca tcctcttt 278

<210> 1780
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1780

ctcttttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt ctcaacttcaa 60
 gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
 tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
 agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
 tcttcaatat ctcaagtgtg tcactctctt t 271

<210> 1781
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1781

ctcttttttct tctctctcaa caacttcacc ttcttctctc tcgatcatgt ctcaacttcaa 60
 gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaggg 120
 tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
 atagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
 tcttcaatat ctcaagtgtg tcactctctt tga 273

<210> 1782
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1782

gaatccaaca ggcgagctct tagggagctg cttttcactg ctctgggtgt tcttcaatag 60
 gtcagtgggtg tcctctcttt tgaggtaacc ctctaccaga gcacagctgc aggcaagccc 120
 tttgtgaatg tcttgaagga agctgggtgtg cttcctggca tcaagggtga caagggcaca 180
 gtcgagcttg ctggaactaa tggagaaacc accactcagg gtctagatgg ccttggtc 238

<210> 1783
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1783

aacagggaca attggcaagc gtttggccag catcagtgtg gagaatgttg aatccaacag 60
 gtgtgctctt agggagctgc ttttcaccgc tcccgggtgt cttaaataac tcagtgggtgt 120
 catctctctt gaggaaactc tctaccagag cacagctgca ggcaagccct ttgtggaagt 180
 cttgaaggag gctgggtgtg ttcctggcat caaggttgac aagggcacag ttgagcttgc 240
 tggcactaat ggagaaac 258

<210> 1784
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 1784

attgaagcca aacatggtca cccctggatc ccaatctgct aaggtttccc ctcaggtggt 60
 tgccgagcac actgtcagag ccttcagag aaccgtgcct gctgcagttc ctgctgtcgt 120
 tttcttgtct ggtggccaga gtgaggagga ggcacccgac aacctcaacg ccattaacca 180
 ggtcaatggg aagaagccat ggtcactctc tttctccttt ggaagggcac ttcaacagag 240
 cacccttaag gcatggg 257

<210> 1785
 <211> 272

<212> nucleic acid
<213> Glycine max

<400> 1785

cgagaaccgt gcctgctgca gttcctgcta tcgttttctt gtctggtggg cagagtgagg 60
aggaggcatc cgttaacctc aatgccatta accagggtcaa tggaaagaag ccatgggtcac 120
tctctttctc ctttgggaagg gcacttcaac agagcaccct taaggcatgg agtggaaaag 180
aggagaatgt gaagaaggct caggaagccc ttttggtaag agccaaggcc aactcagagg 240
caactctggg aactacaagg gtaatcaaag ct 272

<210> 1786
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 1786

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gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaaagg 120
tattcttgct gctgatgagt caacagggtac aattggcaag cgtttggcca gcatcagtgt 180
agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcctggtgt 240
tcttcaatat ctcagtgggtg tcattcctctt tga 273

<210> 1787
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 1787

tgacattcac aagtgtgctg ccgtcaccca gctgtctctt gcagcatgct acaaggcttt 60
gaatgatcac cactgccttc ttgagggtac cctattgaag ccaaaccatgg tcacccccgg 120
atccaattct gctaggtttc cctcagggtg gttgcggaga cactgttaga gcccttcaga 180
gaaccgtgcc tgctgcagtt cctgctatcg ttttcttgtc tgggtgggcag agtgaggagg 240
aggcatccgt taacctcaat gccattaacc 270

<210> 1788
<211> 284

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (53), (73), (76), (228), (256), (266)
<223> unsure at all n locations

<400> 1788

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tccgttaacc ctnaangcca ttaaccaggt caatggaaag aagccatggt cactctcttt 120
ctcctttgga agggcacttc aacagagcac ccttaaggca tggagtggaa aagaggagaa 180
tgtgaagaag gctcaggaag cccttttgggt aagagccaag gccaaactnag aggcaactct 240
gggaacctac aagggnaatc aaagcntgct gatgggtgcct caga 284

<210> 1789
<211> 268
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (184)...(185)
<223> unsure at all n locations

<400> 1789

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aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc tgggtgttctt 120
caatatctca gtggtgtcat cctctttgag gaaacctct accagagcac agctgcagga 180
cagnnctttg tgaatgtctt gaaggaagct ggtgtgcttc ctggcatcaa ggttgacaag 240
ggcacagtcg agcttgctgg aactaatg 268

<210> 1790
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 1790

ggttgacgga tgccctctcc tcaacgccat taaccagggtc aatgggaaga agccatgggtc 60
actctctttc tcctttggaa gggcacttca acagagcacc cttaaggcat ggggcggaaa 120

<400> 1793
 ggaggaggca tccgtcaacc tcaacgccat tnaccaggtc aatgggaaga agccatggtc 60
 actctctttc tcctttggaa gggcacntca acagagcacc cttaaggcnt ggggcggaaa 120
 agaagagaat gtgaagaagg ctcaggaagc ccttttggta agagccaagg ctaactcaga 180
 ggcaactctg ggaacctaca agggtaactc acagcttgct gatgggtgct cagagagcct 240
 ccatgtttcg a 251

<210> 1794
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<400> 1794
 ctctcaagtc caacctaccc ctttttcttc tcccaccaac ttcaccgtct tcttcctcga 60
 tcatgtctca cttcaagggc aagtaccatg atgagcttat tgtcaatgct gcttacattg 120
 gcactcctgg aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt 180
 tggccagcat cagtgtagag aatggtgaat ccaacaggcg tgctcttagg gagctgcttt 240
 tcaccgtccc cgggtgctctt aaatatctca gtgggtgcat cctctt 286

<210> 1795
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 1795
 gaatgcctat ggcttggcca gatacgtgt catatgccag gagaatggcc tggttcccat 60
 tggtgagcct gagatccttg ttgatggatc tcatgacatt cacaagtgtg ctgccgtcac 120
 cgagcgtgtc cttgcagcat gctacaaggc tttgaatgat caccacgtcc ttcttgaggg 180
 taccctattg aagccaaaca tggtcacccc cggatccaat tctgctaagg tttcccctca 240
 ggtggttgcg g 251

<210> 1796
 <211> 294
 <212> nucleic acid
 <213> Glycine max

<210> 1799
 <211> 242
 <212> nucleic acid
 <213> Glycine max

 <400> 1799

 ctcaattcaa gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc 60
 ctggaaaggg tattcttctt gctgatgagt caacagggac aattggcaag cgtttggcca 120
 gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 180
 ctcttggtgt tcttcaatat ctcaagtgtg tcattctctt tgaggaaacc ctctaccaga 240
 gc 242

<210> 1800
 <211> 269
 <212> nucleic acid
 <213> Glycine max

 <400> 1800

 cacctacccc tttttcttct cccaccaact tcaccgtctt cttctctgat catgtctcac 60
 ttcaagggca agtaccatga tgagcttatt gccaatgctg cttacattgg cactcctgga 120
 aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt ggccagcatc 180
 agtgtagaga atgttgaatc caacaggcgt gctcttaggg agctgctttt caccgctccc 240
 ggtgctctta catatctcag tgggtgcat 269

<210> 1801
 <211> 230
 <212> nucleic acid
 <213> Glycine max

 <400> 1801

 ctcaggtggt tgccgagcac actgtcagag cccttcagag aaccgtgcct gctgcagttc 60
 ctgctgtcgt tttcttctt ggtggccaga gtgaggagga ggcattccgtc aacctcaacg 120
 ccattaacca ggtcaatggg aagaagccat ggtcactctc tttctccttt ggaagggcac 180
 ttcaacagag cacccttaag gcatggggcg gaaaagaaga gaatgtgaag 230

<210> 1802
 <211> 246

<212> nucleic acid
<213> Glycine max

<400> 1802

atacgtgtc atatgccagg agaatggcct ggttcccatt gttgagcctg agatccttgt 60
tgatggacct catgacattc acaagtgtgc cgccgtcacc gagcgtgtcc ttgcagcatg 120
ctacaaggct ttgaatgata accatgtcct tcttgagggt accctattga agccatacat 180
ggtcacccct ggatcccaat ctgctaaggt ttcccctcag gtggttgccg agcacactgt 240
cagagc 246

<210> 1803
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 1803

ctacaaggct ttgaatgata accatgtcct tcttgagggt accctattga agccaaacat 60
ggtcacccct ggatcccaat ctgctaaggt ttcccctcag gtggttgccg agcacactgt 120
cagagccctt cagagaaccg tgctgtctgc agttcctgct gtcgttttct tgtctggtgg 180
ccagagttag gaggaggcat ccgtcaacct caacgccatt aaccagggtca atgggaagaa 240
gccatggtca ctctctttct cc 262

<210> 1804
<211> 280
<212> nucleic acid
<213> Glycine max

<400> 1804

tctctcaaca acttcacctt ctctctctc gatcatgtct cacttcaagg gcaagtacca 60
tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggtta ttcttgctgc 120
tgatgagtca acagggacaa ttggcaagcg ttggccagca tcagtgtaga gccattgaa 180
tccaacaggc gagctcttag ggagctgctt ttcactgtct ctggtgttct tcaatatctc 240
agtgggtgtca tctcttttga ggaaaccctc taccagagca 280

<210> 1805
<211> 294

<212>	nucleic acid
<213>	Glycine max

caacctctca	agtccaacct	accccttttt	cttctccac	caacttcacc	gtcttcttcc	60
tcgatcatgt	ctcacttcaa	gggcaagtac	catgatgagc	ttattgcaa	tgctgcttac	120
attggcactc	ctggaaaagg	tattcttgct	gctgtgagtc	aacagggaca	attggcaagc	180
gtttggccag	catcagtgt	gagaatgttg	aatccaacag	gcgtgctctt	agggagctgc	240
ttttcacgcg	tcccggtgct	cttaaatatc	tcagtgggtg	catcctcttt	gagg	294

```
<220>
<221>      unsure
<222>      (63)
<223>
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<400> 1806

tctaacctac	ctctttttct	tctctctcaa	caacttcacc	ttcttctctcc	tcgatcatgt	60
ctncacttcc	aagggcaagt	accatgatga	gcttatcgcc	aatgctgcgt	acattggcac	120
tcttggaag	ggtattcttg	ctgctgatga	gtcaacaggg	acaattggca	agcgtttggc	180
cagcatcagt	gtagagaaca	ttgaatccaa	caggcgagct	cttagggagc	tgcttttcac	240
tgctctgggt	gttcttcaat	atctcagtg	tgctatcttc	tttgaggaaa		290

<210>	1807
<211>	266
<212>	nucleic acid
<213>	Glycine max

<400> 1807

acctacctct	ttttcttctc	tctcaacaac	ttcaccttct	tcctcctcga	tcatgtctca	60
cttcaagggc	aagtaccatg	atgagcttat	cgccaatgct	gcgtacattg	gcactcctgg	120
aaaggggtatt	cttgctgctg	atgagtcaac	agggacaatt	ggcaagcggt	tggccagcat	180
cagtgtagag	aacattgaat	ccaacaggcg	agctcttagg	gagctgcttt	tcactgctcc	240

663470" 0372260

tggtgttctt caatatctca gtggtg

266

<210> 1808
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 1808

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agaatggcct gggtccatt gttgagcctg agatccttgt tgatggatct catgacattc 120
acaagtgtgc tgccgtcacc gagcgtgtcc ttgcagcatg ctacaaggct ttgaatgac 180
accacgtcct tcttgagggt accctattga agccaaacat ggtcaccccc ggatccaatt 240
ctgctaaggt ttccccctc 258

<210> 1809
<211> 279
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (141)
<223>

<400> 1809

aacctctaac ctacctcttt ttcttctctc tcaacaactt caccttcttc ctctctgac 60
atgtctcact tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc 120
actcctggaa agggattctt ngctgctgat gagtcaacag ggacaattgg caagcgtttg 180
gccagcatca gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc 240
actgctcctg gtgttcttca atatctcagt ggtgtcatc 279

<210> 1810
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 1810

attgaagcca aacatgggtca cccctggatc ccaatctgct aagggttccc ctgaggtggt 60
tgccgagcac actgtcagag cccctcagag aaccgtgcct gctgcagttc ctgctgtcgt 120

<400> 1813

cctcttttttc ttctctctca acaacttcac cttctctctc ctcgatcatg tctcacttca 60

agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 120

gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc agcatcagt 180

tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttctact gctcctgggtg 240

ttcttcaata tctcagtggg gtcaccc 268

<210> 1814

<211> 271

<212> nucleic acid

<213> Glycine max

<400> 1814

aacctacctc tttttcttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc 60

acttcaaggg caagtacat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120

gaaagcgat tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca 180

tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240

ctggtgttct tcaatatctc agtggtgtca t 271

<210> 1815

<211> 265

<212> nucleic acid

<213> Glycine max

<400> 1815

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caatctgcta aggtttcccc tcaggtgggt gccgagcaca ctgtcagagc cttcagaga 120

accgtgctg ctgcagttcc tgctgtcgtt ttcttgtctg gtggccagag tgaggaggag 180

gcacccgtca acctcaacgc cattaaccag gtcaatggga agaagccatg gtcactctct 240

ttctcctttg gaagggcact tcaac 265

<210> 1816

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 1816
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 gcatcaaggt tgacaagggc acagtcgagc ttgctggaac taatggagaa accaccactc 180
 agggctctaga tggccttggt cagcgttggt ccaagtacta cgaagctggt gcacgttttg 240
 ccaaatggcg t 251

<210> 1817
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1817
 gctcgaagcg caattggaca agcgtttggc cagcatcagt gtagagaaca ttgaatccaa 60
 caggcgagct cttagggagc tgcttttcac tgctcctggt gttcttcaat atctcagtgg 120
 tgtcatcctc tttgaggaaa ccctctacca gagcacagct gcaggcaagc cctttgtgaa 180
 tgtcttgaag gaagctggtg tgcttcctgg catcaagggt gacaagggca cagtcgagct 240
 tgctggaact aatggagaaa ccacc 265

<210> 1818
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1818
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 aggccagagt gaggaggaga catccgtcaa cctcaacgcc attaaccagg tcaatgggaa 120
 gaagccatgg tcaactctctt tctcctttgg aagggcactt caacagagca cccttaaggc 180
 atggggcgga aaagaagaga atgtgaagaa tgctcaggaa gcccttttgg taagagccaa 240
 ggctaactca gaggcaactc tggg 264

<210> 1819
 <211> 247
 <212> nucleic acid
 <213> Glycine max

tcagtgtaga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
ctggtgttcn tcaatatctc agtggtg 267

<210> 1822
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 1822

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tcacttcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120
tggaagggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240
tcccgggtgct cttaaataatc tcagtgg 268

<210> 1823
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 1823

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cacttcaagg gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct 120
ggaaagggtt ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc 180
atcagtgtag agaacattga atccaacagg cgagctctta gggagctgct tttcactgct 240
cctggtgttc ttcaatatct cagtgg 266

<210> 1824
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 1824

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gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc ctggaaagg 120
tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180

agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
tcttcaatat ctcaagtgt 259

<210> 1825
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 1825

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gagcttatcg ccaatgctgc gtacattggc actcctggaa agggatttct tgctgctgat 120
gagtcaacag ggacaattgg caagcgtttg gccagcatca gtgtagagaa cattgaatcc 180
aacaggcgag ctcttaggga gctgcttttc actgctcctg gtgttcttca atatctcagt 240
ggtgtcatc 249

<210> 1826
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 1826

cgaagctggt gcacgttttg ccaaattggcg tgcagtgtg aagattggtc ccaacgagcc 60
atctgagctg tctatccatg agaacgcta tggcttggct agatacgtg tcatatgcca 120
ggagaatggc ctggttccca ttgttgagcc tgagatcctt gttgatggac ctcatgacat 180
tcacaagtgt gccgcgtca ccgagcgtgt ccttgcagca tgcataaagg ctttgaatga 240
tcaccatgtc cttcttgagg gtaccctatt ga 272

<210> 1827
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1827

gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgtc ctggtgttct 60
tcaatatctc agtgggtgtca tcctctttga ggaaaccctc taccagagca cagctgcagg 120
caagcccttg tgaatgtctt gaaggaagct ggtgtgcttc ctggcatcaa ggttgacaag 180

ggcacagtcg agcttgctgg aactaatgga gacaccacca ctcagggctc agcatggctt 240
agtcagcggt gtg 253

<210> 1828
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 1828

ctacctcttt ttcttctctc tcaacaactt cacttcttc ctcctcgatc atgtctcact 60
tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
agggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 180
gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 240
gtgttcttca atatctca 258

<210> 1829
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 1829

gccaggagaa tggcctgggt ccattgttg agcctgaggt ccttgttgat ggacctcgtg 60
acattcacia gtgtgccgcc gtcaccgagc gtgtccttgc agcatgctac aaggcttttg 120
gtgatcaccg tgtccttctt gagggtagcc tattgaagcc aaacatgggc acccctggat 180
cccagtctgc taagggttcc cctcaggtgg ttgccgagca cactgtcaga gcccttcaga 240
gaaccgtg 248

<210> 1830
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 1830

attgaagcca aacatgggtc cccctggatc ccaatctgct aagggttccc ctcaggtggt 60
tgccgagcac actgtcagag cccttcagag aaccgtgcct gctgcagttc ctgctgtcgt 120
tttcttgtct ggtggccaga gtgaggagga ggcacccgtc aacctcaacg ccattaacca 180

gggtcaatggg aagaagccat gggtcactctc tttctccttt ggaagggcac ttcaaca 237

<210> 1831
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 1831

cttgagggta cctattgaag ccaaacatgg tcacccccgg atccaattct gctaagggtt 60
 cccctcaggt gggtgcggac aactgttag agcccttcag agaaccgtgc ctgctgcagt 120
 tctgtctatc gttttcttgt ctgggtgggca gagtgaggag gaggcacccg ttaacctcaa 180
 tgccattaac caggtcaatg gaaagaagcc atgggtcactc tctttctcct ttggaagggc 240
 acttcaac 248

<210> 1832
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 1832

agtcggatct agctgcttac attggcactc ctggaaaggg tattcttgct gctgatgagt 60
 caacagggac aattggcaag cgtttgcca gcatcagtgt agagaatgtt gaatccaaca 120
 ggcgtgctct tagggagctg cttttcacccg ctcccgggtgc tcttaaatat ctcagtgggtg 180
 tcctctctt tgaggaaact ctctaccaga gtacagctgc aggcaacccc tttgtggaac 240
 tcttgaagga gg 252

<210> 1833
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1833

ctaacctacc tctttttctt ctctctcaac aacttcacct tcttctcct cgatcatgtc 60
 tcacttcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
 tggaaagggg attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttactgc 240

264

<400> 1834

<400>	1835
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<400>	1836
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gcaagtacca	tgatgagctt	atcgccaatg	ctgcgtacat	tggcactcct	ggaaagggtta	120
ttcttgctgc	tgatgagtca	acagggacaa	ttggcaagcg	tttggccagc	atcagtgtag	180
agaacattga	atccaacagg	cgagctctta	gggagctgct	tttactgct	cctgggtgttc	240

ttcaatatct cagtgggtg

258

<210> 1837
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 1837

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atcgccaatg ctgcgtacat tggcactcct ggaaagggta ttcttgctgc tgatgagtca 120
acagggacaa ttggcaagcg tttggccagc atcagtgtag agaacattga atccaacagg 180
cgagctctta gggagctgct tttcactgct cctgggtgtc ttcaatatct cagtgggtgc 240
at 242

<210> 1838
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1838

cctctttttc ttctctctca acaacttcac cttcttcctc ctcgatcatg tctcacttca 60
agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact cctggaaagg 120
gtattcttgc tgctgatgag tcaacagggg caattggcaa gcgtttggcc agcatcagtg 180
tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact gctcctgggtg 240
ttcttcaata tc 252

<210> 1839
<211> 272
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (13), (35), (93), (231), (246)
<223> unsure at all n locations

<400> 1839

aactacctct ttntcttctc tctcaacaac ttcancttct tcctcctcga tcatgtctca 60
cttcaagggc aagtaccatg atgagcttat cgncaatgct gcgtacattg gcactcctgg 120

aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt ncactgctcc 240
tggtgntctt caatatctca ggtgtcatcc tc 272

<210> 1840
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 1840

atcaccatgt ccttcttgag ggtaccctat tgaagccaaa catggtcacc cctggatccc 60
aatctgctaa ggtttccct caggtgggtg ccgagcacac tgtcagagcc cttcagagaa 120
ccgtgcctgc tgcagttcct gctgtcgctt tcttgtctgg tggccagagt gaggaggagg 180
catcgtcaa cctcaacgcc attaaccagg tcaatgggaa gaagccatgg tcaactctctt 240
tctcct 246

<210> 1841
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1841

ctctttttct tctctctcaa caacttcacc ttcttctctc togatcatgt ctcaactcaa 60
gggcaagtac catgatgagc ttatcgccaa tgcctgcgtac attggcactc ctggaaaggg 120
tattcttgct gctgatgagt caacagggac aattggcaag cgtttggcca gcatcagtgt 180
agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg ctcttggtgt 240
tcttcaatat ct 252

<210> 1842
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 1842

ctttttcttc tctctcaaca acttcacctt ctctctactc gatcatgtct cacttcaagg 60
gcaagtacca tgatgagctt attgccaatg ctgcgtacat tggcactcct ggaaagggta 120

ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 180
 agaacattga atccaacagg cgagctctta gggagctgct tttcactgct cctgggtgttc 240
 ttcaatatct c 251

<210> 1843
 <211> 266
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (9), (26), (81), (99), (133), (144), (180), (191), (225)
 <223> unsure at all n locations

<400> 1843
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 gcaagtacca tgatgagctt nttgccaatg ctgcttacnt tggcactcct ggaaagggta 120
 ttcttgctgc tgntgagtca acanggacaa ttggcaagcg tttggccagc atcagtgtan 180
 agaatgttga ntccaacagg cgtgctctta gggagctgct tttcnccgct cccggtgtctc 240
 ttaaatatct cagtgggtgtc atcctc 266

<210> 1844
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1844
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 gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggta 120
 ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 180
 agaacattga atccagcagg cgagctctta gggagctgct tttcactgct cctgggtgttc 240
 attcatatct caggggtgt 258

<210> 1845
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1845
 caagtccaac ctaccccttt ttctttctcc accaacttca ccgtcttctt cctcgatcat 60
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 tcctggaaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 180
 cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttagggagc tgcttttcac 240
 cgctcccggg gctcttaaat atctc 265

<210> 1846
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 1846
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 tcctcgatca tgtctcactt caagggcaag taccatgatg agcttattgc caatgctgct 120
 tacattggca ctctggaaa gggtttcttg ctgctgatga gtcaacaggg acaattggca 180
 agcgtttggc cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttagggagc 240
 tgcttttcac cgctcccggg gctcttaaat atctcagt 278

<210> 1847
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 1847
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 tgtctcactt caagggcaag taccatgatg agcttattgt caatgctgct tacattggca 120
 ctctggatc aggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgtcccg gtgctcttaa atatctcagt ggtgtca 277

<210> 1848
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 1848
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 gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg 120
 gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag 180
 ctgcaggcaa gccctttctg gaagtcttga aggaggctgg tgtg 224

<210> 1849
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 1849
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 aagtaccatg atgagcttat tgccaatgct gcttacattg gcactcctgg aaaggggtatt 120
 cttgctgctg atgagtcaac agggacaatt ggcaagcggt tggccagcat cagtgtagag 180
 aatggtgaat ccaacaggcg tgctcttagg gagctgcttt tcaccgctcc cgggtgctc 238

<210> 1850
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1850
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 actcctggaa aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgctcccg gtgctcttaa atatc 265

<210> 1851
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1851
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 actcctggaa aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgctcccg gtgctcttaa 260

<210> 1858
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (112), (192)
 <223> unsure at all n locations

<400> 1858

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 ccctcaggtg gttgccgagc aactgtcag agcccttcag agaaccgtgc ctgctgcagt 180
 tctgtctgtc gntttcttgt ctggtggcca gagtgaggag gaggcattccg tcaacctcaa 240
 cg 242

<210> 1859
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 1859

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 aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
 cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcactgctcc 240
 tggtgttctt caatatctca gtggtg 266

<210> 1860
 <211> 260
 <212> nucleic acid

<213> Glycine max

<400> 1860

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cttgctgctg atgagcaaca gggacaattg gcaagcgttt ggccagcatc agtgtagaga 180
accttgaatc caacaggcga gctcttaggg agctgctttt cactgctcct ggtgttcttc 240
aatatctcag tgggtgtcatc 260

<210> 1861

<211> 264

<212> nucleic acid

<213> Glycine max

<400> 1861

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tctcaattca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattttgct gctgatgagt caacaggggac aattggcaag cgtttggcca 180
gcatcagtgt agagaacatt gaatccaaca ggcgagctct tagggagctg cttttcactg 240
ctcctggtgt tcttcaatat ctca 264

<210> 1862

<211> 256

<212> nucleic acid

<213> Glycine max

<400> 1862

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tcacttcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120
tggaagggt attcctgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaatgttg aatccaacag gcgtgctctt agggagctgc ttttcaccgc 240
tcccgtgct cttaaa 256

<210> 1863

<211> 256

<212> nucleic acid

<213> Glycine max

<400> 1863

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 ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg cactcctgga 120
 aagggatttc ttctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 180
 gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 240
 gtgtttcttca atatct 256

<210> 1864

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 1864

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 cccctcaggt ggttgccggag aactgttag agcccttcag agaaccgtgc ctgctgcagt 180
 tctgctatc gttttcttgt ctggtgggca gagtgaggag gaggcattccg ttaacctcaa 240
 tgccatt 247

<210> 1865

<211> 256

<212> nucleic acid

<213> Glycine max

<400> 1865

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 tttggccagc atcagtgtag agaacattga atccaacagg cgagctctta gggagctgct 180
 tttcactgct cctggtgttc ttcaatatct catggtgtca tcctctttga ggaaaccctc 240
 taccagagca cagctg 256

<210> 1866

<211> 266

<212> nucleic acid

<213> Glycine max

<400> 1866

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aggctcagga agcccttttg gtaagagcca aggccaactc agaggcaact ctgggaacct 120
acaagggtaa ctcaaagctt gctgatgggtg cctcagagag cctccatgtt gaggactaca 180
agtactgata aatctaagtg cgggtaggaa tcggtatttt atgggtacaa ccgaattttc 240
ttgttaatga gtattgtgct tcgact 266

<210> 1867

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 1867

ctctaacctt cctctttttc ttctctctca acaacttcac cttcttctc ctgatcatg 60
tctcacttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
agcatcagtg tagagaacat tgaatccaac aggcgagctc ttagggagct gcttttcact 240
gctcctg 247

<210> 1868

<211> 264

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (45), (57)

<223> unsure at all n locations

<400> 1868

ctacctttt ttcttctctc tcaacaactt caccttcttc ctccncgatc atgtctncac 60
ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg cactcctgga 120
aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt ggccagcatc 180
agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt cactgctcct 240
gggtgttcttc aatatctcag tggt 264

<210> 1869
 <211> 269
 <212> nucleic acid
 <213> Glycine max

 <400> 1869

 ctcaagtcca acctacccct ttttcttctc ccaccaactt caccgtcttc ttctctgac 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc 120
 actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgtaccg gtgctcttaa atatctcag 269

<210> 1870
 <211> 250
 <212> nucleic acid
 <213> Glycine max

 <400> 1870

 cctcgagctc gattcggtc gagggccaag taccatgatg agcttacgcg ccaatgctgc 60
 gaccattggc actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg 120
 ctgcggttg gccagcatca gtgtagagaa cattgaatcc aacaggcgag ctcttaggga 180
 gctgcttttc actgctcctg gtgttcttca atatctcagt ggtgtcatcc tctttgagga 240
 aacctctac 250

<210> 1871
 <211> 259
 <212> nucleic acid
 <213> Glycine max

 <400> 1871

 ctcaagtcca acctacccct ttttcttctc ccaccaactt caccgtcttc ttctctgac 60
 atctcacttc aagggcaagt accatgatga gcttattgcc aatgctgctt acattggcac 120
 tcttgaaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 180
 cagcatcagt gtagagaatg ttgaatccaa caggcgtgct ctagggagc tgcttttcac 240
 cgctcccgt gctcttaaa 259

<210>	1872
<211>	249
<212>	nucleic acid
<213>	Glycine max

<400> 1872

<210>	1873
<211>	243
<212>	nucleic acid
<213>	Glycine max

ctcaagtcca	acctaccctt	ttttcttctc	ccaccaactt	cacogtcttc	ttcctcgatc	60
atgtctcact	tcaagggcaa	gtaccatgat	gagcttattg	tcaatgctgc	ttacattggc	120
actcctggaa	agggtattct	tgctgctgat	gagtcaacag	ggacaattgg	caagcgtatg	180
gctcgcatca	gtgtagagaa	tgttgaatcc	aacaggcgtg	ctcttaggga	gctgcttttc	240
acc						243

<210>	1874
<211>	254
<212>	nucleic acid
<213>	Glycine max

```
<220>
<221>      unsure
<222>      (41),(46),(95),(115),(117),(167),(194),(202),(215)
<223>      unsure at all n locations
```

<400> 1874

acctctcaag tccaacctac ccctttttct tctcccacca ncttcncggt cttcttctct 60
gatcatgtct cacttcaagg gcaagtacca tgatnagctt attgccaatg ctgcntncat 120

tggcactcct ggaaagggta ttcttgtctgc tgatgagtca acagggncaa ttggcaagcg 180
 tttggccagc atcngtgtag anaatgttga atccnacagg cgtgctctta gggagctgct 240
 tttcacgct cccg 254

<210> 1875
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 1875

aacctacctc tttttcttct ctctcaacaa cttcacctac ttctctctcg atcatgtctc 60
 acttcaaggg caagtaccat gatgagctta tcgccaatgc tgcgtacatt ggcactcctg 120
 gaaagggcat tcttgtctgct gaggagtcaa cagggacaat tggcaagcgt ttggccagca 180
 tcagtgtcga gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc 240
 ctggtgttcc cc 252

<210> 1876
 <211> 294
 <212> nucleic acid
 <213> Glycine max

<400> 1876

caacctctca agtccaacct accctttttt cttctccac caacttcacc gtcttttctc 60
 tcgattcatg tctcaattca aggggcaagt accatgatga gcttattgcc aatgctgctt 120
 acattggcac tcttggaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 180
 agcgtttggc cagcatcagt gtagagaatg ttgaatcaa caggcgtgct cttagggagc 240
 tgcttttcac cgtcccggt gctcttaaat atctcagtgg tgtcaacctc ttga 294

<210> 1877
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 1877

tcaagtatta acccttttct ctctgaatac tctctactca atacattggc actcctggaa 60
 agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 120

gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 180
 gtgtttttca atatctcagt ggtgtcatcc tctttgagga aacctctac cagagcacag 240
 ctgc 244

<210> 1878
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 1878

ctcaagtcca acctaccct tttttttctc ccaccaactt caccgtcctc ttctcgcac 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg tcaatgctgc ttacattggc 120
 actcctggaa agggatttct tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tggtgaatcc aacaggcggtg ctcttaggga gctgcttttc 240
 accg 244

<210> 1879
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 1879

ccaacctctc aagtccaacc tacccttttt tcttctccca ccaacttcac cgtcttcttc 60
 ctgatcatg tctcacttca agggcaagta ccatgatgag cttattgtca atgctgctta 120
 cattggcact ctggaaaggg tattcttgct gctgatgagt caacagggac aattggcaag 180
 cgtttggccca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct tagggagctg 240
 cttttcacccg ctcccgtg 259

<210> 1880
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 1880

gtccaacctc cccctttttc ttctcccacc aacttcaccg tcttcttcct cgatcatgtc 60
 tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca ttggcactcc 120

tgtcttgaag gaagctgggtg tgcttcctgg catcaagggtt gacaagggca cagtcgagct 180
tgctggaact aatggagaaa ccaccactca ggggtctagat ggccttggtc agcgttgtg 239

<210> 1884
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (39), (62), (67)
<223> unsure at all n locations

<400> 1884

ctaacctacc tctttttctt ttctctcaac aacttcacnt tcttctctct cgatcatgtc 60
tnacttncaa gggcaagtac catgatgagc ttatcgccaa tgctgcgtac attggcactc 120
ctggaaaggg tattcttgtg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
catcagtgtg gagaacattg aatccaacag gcgagctctt agggagctgc ttttactgtc 240
tcctggtgtt cttcaatatc t 261

<210> 1885
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 1885

ccaacctctc aagtccaacc taccctttt tcttctccca ccaacttcac cgtcctcttc 60
ctcgatcatg tctcacttca agggcaagta ccatgatgag cttattgccca atgctgctta 120
cattggcact cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa 180
gcgtttggcc agcatcagtg tagagaatgt tgaatccaac aggcgtgctc ttagggagc 239

<210> 1886
<211> 256
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (65), (68)
<223> unsure at all n locations

<400> 1886
 cttttttcca acctctcaag tccacactac ccttttttct tctcccacca acttcaccga 60
 tcacntcntc gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgtcaatg 120
 ctgcttacat tggcactcct ggaaagggtta ttcttgctgc tgatgagtca acagggacaa 180
 ttggcaagcg tttggccagc atcagtgtag agaattgtga atccaacagg cgtgctctta 240
 gggagctgct tttcac 256

<210> 1887
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1887
 acctacctct tttttttctc tctcaacaac ttcaccttct tcttctctga tcatgtctca 60
 cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcactcctgg 120
 acaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcggt tggccagcat 180
 cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 240
 tgggtgttctt caatatctca gtgg 264

<210> 1888
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 1888
 ctaacctacc tctttttctt ctctctcaac aacttcacct tcttctctct cgatcatgtc 60
 tcacttcaag ggcaagtacc atgatgagct tatcgccaat gctgcgtaca ttggcactcc 120
 tggaaagggt attttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc 180
 atcagtgtag agaacattga atccaacagg cgagctctta gggagctgct tttcactgct 240
 cctggtgttc ttcaa 255

<210> 1889
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

 <400> 1889

 cttttcttcca acctctcaag tccaacctac ccctttttct tctcncacca acttcaccgt 60
 cttcttctctc gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgccaatg 120
 ctgcttacat tgcactcctg gaaagggat tcttgctgct gatgagtcaa cagggacaat 180
 tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa tccaacaggc gtgctcttag 240
 ggagctgctt ttca 254

<210> 1890
 <211> 255
 <212> nucleic acid
 <213> Glycine max

 <400> 1890

 cctacctctt tttcttctct ctcaacaact tcaccttctt cctcctcgat catgtctcac 60
 ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg cactcctgga 120
 aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt ggccagcatc 180
 agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt cactgctcct 240
 ggtgttcttc aatat 255

<210> 1891
 <211> 238
 <212> nucleic acid
 <213> Glycine max

 <400> 1891

 cctcgagccg aatcggtctg agcacttcaa gggcaagtac catgacgagc ttattgtcaa 60
 acctgcttac attggcactc ctggaaaggg tattcttgct gctgatgagt caacagggac 120
 aattggcaag cgtttgcca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct 180
 tagggagctg cttttcaccg ctcccgtgct tcttaaatat ctgagtggtg tcatcctc 238

<210> 1892
 <211> 271

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (251), (264) ... (265)
<223> unsure at all n locations

<400> 1892

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ggcctggttc ccattgttga gcctgagatc cttgttgatg gacctcatga cattcacaag 60
tgtgccgcgc tcaccgagcg tgtccttgca gcatgctaca aggctttgaa tgatcaccat 120
gtcctttcttg aggggtaccct attgaagcca aacatgggtca cccctggatc ccaatctgct 180
aagggtttccc ctcaggtggt tgccgagcaa atgtcagagc cttcagagaa cggtgcctgc 240
tgcagtcctg ngtcgttttc tggnnngggg g 271
```

<210> 1893
<211> 283
<212> nucleic acid
<213> Glycine max

<400> 1893

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ctctaacctt cctctttttc ttctctctca acaacttcac cttctacctc ctcgatcatg 60
tctcatttca agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg gtattcttgc tgctgatgag tcaacaggga caattggcaa gcgtttggcc 180
agcatcagtg tagagaacat cgaatccaac aggcgagctc ttagggagct gcttttcact 240
gctcctggtg ttcttcaata tctcagtact gtcacccctt ttg 283
```

<210> 1894
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 1894

```
tttcttccaa cctctcaagt ccaacctacc cctttttctt ctcccaccaa cttcaccgtc 60
actcttcttc gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgccaatg 120
ctgcttacat tggcactcct ggaaagggtg ttcttgctgc tgatgagtca acagggacaa 180
ccggcaagcg tttggccagc atcagtgtag agaattgtga atccaacagg cgtgctctta 240
```

gggagctgct ttt 253

<210> 1895
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 1895

ctttcttcca acctctcaag tccatcctac ccctttttct tctccaccca acttcaccgt 60
 acatttcctc gatcatgtct cacttcaagg gcaagtacca tgatgagctt attgccaatg 120
 ctgcttacat tggcactcct ggaaagggtta ttcttgctgc tgatgagtca acagggacaa 180
 ttggcaagcg tttggccagc atcagtgtag agaatgttga atccaacagg cgtgctctta 240
 gg 242

<210> 1896
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (18), (53)
 <223> unsure at all n locations

<400> 1896

ctctaacctt cctctttntc ttctctctca acaacttcac cttcttcctc ctncgatcat 60
 gtctccactt caagggcaag taccatgatg agcttatcgc caatgctgcg tacattggca 120
 ctcttgaaa gggatttctt gctgctgatg agtcaacagg gacaattggc aagcgtttgg 180
 ccagcatcag tgtagagaac attgaatcca acaggcgagc tcttagggag ctgcttttca 240
 ctgctcctgg tgttctt 257

<210> 1897
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (28)
 <223>

<400> 1897

cttccaacct ctcaagtcca acctaccnct ttttcttctc ccaccaactt caccgtcctt 60

cttcctcgat catgtctcac ttcaagggca agtaccatga tgagcttatt gccaatgctg 120

cttacattgg cactcctgga aagggatttc ttgctgctga tgagtcaaca gggacaattg 180

gcaagcgttt ggccagcatc agtgtagaga atgttgaatc caacaggcgt gctctaggga 240

gctgcttt 248

<210> 1898

<211> 243

<212> nucleic acid

<213> Glycine max

<400> 1898

cttctctctc aacaacttca ctttcttcct cctcgatcat gtctcacttc aagggcaagt 60

accatgatga gcttatcgcc aatgctgcgt acattggcac tcctggaaaag ggtattcttg 120

ctgctgatga gtcaacaggg acaattggca agcgtttggc cagcatcagt gtagagaaca 180

ttgaatccaa caggcgagct cttagggagc tgcttttcac tgctcctggt gttcttcaat 240

atc 243

<210> 1899

<211> 268

<212> nucleic acid

<213> Glycine max

<400> 1899

gccattaacc aggtcaatgg aaagaagcca tggtcactct ctttctcctt tggaagggca 60

cttcaacaga gcacccttaa ggcattggagt ggaaaagagg agaattgtgaa gaaggctcag 120

gaagcccttt tggttaagagc caaggccaac tcagaggcaa ctctgggaac ctacaaggggt 180

aacttcaaag cttgctgatg gtgcctcaga gagcctccag ttgaggacta caattactga 240

ttcaatctaa gtgcgggtag gaatcgggt 268

<210> 1900

<211> 253

<212> nucleic acid

<213> Glycine max

gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggta 120
ttcttgaagc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 180
agaacattga atccaacagg cgaqctctta ggaqctgct tttcactgct cctgggtg 237

<210>	1907
<211>	237
<212>	nucleic acid
<213>	Glycine max

<400> 1907

tctcgagccg	attcggtctg	agctaacct	cctctttttc	ttctctcgca	acaacttcac	60
ctacttcctc	ctcgatcatg	tcacacttca	agggcaagta	ccatgatgag	cttatcgcca	120
atgctgcgta	cattggcact	cctggaaagg	gtattcttgc	tgctgatgag	tcaacagggg	180
caattggcaa	gcgtttggcc	agcatcagtg	tagagaacat	tgaatccaac	aggcgag	237

<210>	1908
<211>	243
<212>	nucleic acid
<213>	Glycine max

<400> 1908

ctcctttgga	agggcacttc	aacagagcac	ccttaaggca	tggggcgga	aataagagaa	60
tgtgaagaag	gctcaggaag	cccttttgg	aagagccaag	gctaactcag	aggcaactct	120
gggaccctac	aagggttaact	cacagcttgc	tgatggtgcc	tcagagagcc	tccatgtttc	180
gaactacagc	tactgatcaa	tcgaagttag	tgttgtttga	agagactagt	gcgagtagga	240
atc						243

<210>	1909
<211>	249
<212>	nucleic acid
<213>	Glycine max

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<220>
<221>      unsure
<222>      (45), (51), (62), (73), (121)... (122)
<223>      unsure at all n locations
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<400> 1909

ctttcttcca acctctcaag tccaacctac ccctttttct tctcncacca ncttcaccgt 60

enttttcttc gancatgtct cacttcaagg gcaagtacca tgtgagctta ttgccaatgc 120
 nncttacatt ggcaactcctg gaaaggggtat tcttgctgct gatgagtcaa cagggacaat 180
 tggcaagcgt ttggccagca tcagtgtaga gaatgaatcc aacaggcgtg ctcttaggga 240
 gctgctttt 249

<210> 1910
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 1910

cctctaacct acctcttttag cttctctctc aacaacttca ctttcttcct cctcgatcat 60
 gtctcacttc aagggcaagt accatgatga gcttatcgcc aatgctgcgt acattggcac 120
 tcctggaaaag ggtattcttg ctgctgatga gtcaacaggg acaattggca agcgtttggc 180
 cagcatcagt gtagagaaca ttcaatccaa caggcgagct tagggagctg cttttcactg 240
 ct 242

<210> 1911
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (2), (44), (65), (82)... (83), (107), (221)
 <223> unsure at all n locations

<400> 1911

cnttgggaagg gcacttcaac agagcaccct taaggcatgg gacngaaaag aagagaatgt 60
 gaagnaggct caggaagccc tnntggtaag agccaaggct aactcanagg caactctggg 120
 aacctacaag ggtaactcac agcttgctga tggcgcctca gagagcctcc atgtttcgaa 180
 ctaagctaact gatcaatcga agttgggtgtt gtttgaagag nctagtgcga gtaggaatcg 240
 gtattatg 248

<210> 1912
 <211> 243
 <212> nucleic acid

<213> Glycine max

<400> 1912

ctccttttga agggcacttc aacagagcac ccttaaggca tgaggcggaa aagaagagaa 60
tgtgaagaag gctcaggaag cccttttggg aagagccaag gctaactcag aggcaactct 120
gggaacctac aagggttaact cacagcttgc tgatgggtgcc tcagagagcc tccatgtttc 180
gaactacagc tattgtcaat cgagttgggg gtggtttaag agacctagtt cgagtaggaa 240
tcg 243

<210> 1913

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 1913

gaagaaggct caggaagccc ttttggttaag agccaaggcc aactcagagg caactctggg 60
aacctacaag ggtaactcaa agcttgctga tgggtgcctca gagagcctcc atgttgagga 120
ctacaagtac tgatcaatct aagtgcgggt aggaatcggt attttatggg tacaaccgaa 180
ttttcttgtt aatgagtatt gtgcttcgac ttttccaga ataataatcg tttggaattt 240
tgctttttgt ttttcctagt g 261

<210> 1914

<211> 253

<212> nucleic acid

<213> Glycine max

<400> 1914

cggtctgagc gggtcgagcg gctcgagaac ctacctttt ttcttctctc tcaacaactt 60
caccttcttc cacctcgata atgtctcact tcaagggcaa gtaccatgat gagcttatcg 120
ccaatgctgc gtacattggc actcctggaa agggatttct tgctgctgat gagtcaacag 180
ggacaattgg caagcgtttg gccagcatca gtgtagagaa cattgaatcc aacaggcgag 240
ctcttaggga gct 253

<210> 1915

<211> 260

<212> nucleic acid

<213> Glycine max

<400> 1915

aacagagcac ccttaaggca tggggcggaa aagaagagaa tgtgaagaag gctcaggaag 60
cccttttggg aagagccaag gctaactcag aggcaactct gggaacctac aagggttaact 120
cacagcttgc tgatggtgcc tcagagagcc tccatgtttc gaactacagc tactgatcaa 180
tcgaagttagg tgttgtttga agagactagt gcgagtagga atcggtatta tgggtacaac 240
aaccgaattt cttgttgata 260

<210> 1916

<211> 257

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (74)

<223>

<400> 1916

aagcaacctc taacctacct ctttttcttc tctctcaaca acttcacctt cttcactctc 60
gatcatgaca cacntcaaag gcaagtacca tgatgagctt atcgccaatg ctgcgtacat 120
tggcactcct ggaaagggca ttcttgctgc tgatgagtca acagggacaa ttggcaagcg 180
tttggccagc atcagtgtag agaacattga atccacaggc gagctcttag ggagctgctt 240
ttcactgctc ctggtgt 257

<210> 1917

<211> 263

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (250), (258)

<223> unsure at all n locations

<400> 1917

ggagaatgtg aagaaggctc aggaagccct tttggtaga gccaaaggcca actcagaggc 60
aactctggga acctacaagg gtaactcaaa gcttgctgat ggtgcctcag agagcctcca 120

ccaactcaga ggcaactctg ggaacctaca agggtaactc aaagcttgct gatgggacct 60
cagagagcct ccatgttgag gactacaagt actgatcaat ctaagtgcgg gtaggaatcg 120
gtatatttatg ggtacaaccg aattttcttg ttaatgagta ttgtgcttcg actcttccca 180
gaataataat cgtttggaat ttgtcttttt gttttcctag tggtccttca tatcaatttt 240
agtaattcgg tgtattggtc aa 262

<210> 1921
<211> 145
<212> nucleic acid
<213> Glycine max

<400> 1921

cgtttgacca gcatcagtgt agagaatgtt gaatccaaca ggcgtgctct tagggagctg 60
cttttcaccg ctcccgggtgc tcttaaataat ctcatggtg tcctcctctt tgaggaaact 120
ctctaccaga gcacagctgc aggca 145

<210> 1922
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 1922

gctcaggaag cccttttggt aagagccaag gccaaactcag aggcaactct gggaagctac 60
aagggttaact caaagcttgc tgatgggtgcc tcagagagct ccatgttgag gactacaagt 120
actgatcaat ctaagtgcgg gtaggaatcg gtatatttatg ggtacaaccg aattttcttg 180
ttaatgagta ttgtgcttcg actcttccca gaataataat cgtttggaat ttgtctttt 239

<210> 1923
<211> 238
<212> nucleic acid
<213> Glycine max

<400> 1923

tccaacctct caagtccaac ctaccccttt ttctgtctcc accaacttca ccgtcttctt 60
cctcgatcat gtctcacttc aagggtcaagt accatgatga gcttattgcc aatgctgctt 120
acattggcac tcttggaag ggtattcttg ctgctgatga gtcaacaggg acaattggca 180

agcggtttggc cagcatcagt gtagagaatg ttgaatccaa caggcgtgct cttaggga 238

<210> 1924
 <211> 210
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (36), (61)...(62), (173), (185), (200), (203), (206)
 <223> unsure at all n locations

<400> 1924

cttttttcca acctctcaag tccaacctac cccttnttct tctcccacca acttcaccgt 60
 nntttttcct cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat 120
 gctgcttaca ttggcactcc tggaaaggga ttcttgctgc tgatgagtca acngggacat 180
 ttggnagcgt ttgccaagcn ganatntaac 210

<210> 1925
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 1925

aaaccttcaa gtccaacctt cccctttttc ttctcccacc aacttcaccg tctttttcct 60
 cgatcatgtc tcaattcaag ggcaagtacc atgatgagct tattgccaat gctgcttaca 120
 ttggcactcc tggaaagggg tatcttgctg ctgatgagtc aaccaggacc attggcaagc 180
 gttttgccaa catccgtgta gaagatgttg aattccacaa ggcggctcct aagggaactgg 240
 ttttcaacgg ttcccgtgct cct 263

<210> 1926
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 1926

gagaatgtga agaaggctca ggaagccctt ttggtaagag ccaaggctaa ctcagaggca 60
 actctgggaa cctacaaggg taactcacag cttgctgatg gtgcctcaga gagcctccat 120
 gtttcgaact acagctactg atcaatcgaa gttggtgttg tttgaagaga ctagtgcgag 180

taggaatcgg tattatgggt acaacaaccg aatttcttgt tgataagtat tattgtgggt 240
tgactcttcc cagaataatc gtttgggaatt t 271

<210> 1927
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 1927

acctacctct ttttcttctc tctcaacgac ttcttcttct tctctctcta tcatgtctta 60
cttcaagggc aagtaccatg atgagcttat tgccaatgct gcgtacattg gcagtctctg 120
aaaggggtatt cttgctgctg atgagtcagc agggacagtt ggcaatcggt tggccacaat 180
cagtgtagac gacattgtat ccaacaggcg agctcttatg gagctgcttt tcaactgctcc 240
t 241

<210> 1928
<211> 274
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2), (4), (9), (11), (35), (40), (47), (50), (55), (63), (65),
(79), (83), (146), (180), (212), (214) ... (215), (228), (235),
(247) ... (248), (255), (257) ... (263), (265)
<223> unsure at all n locations

<400> 1928

ancnacctnt ntttcttctc tctcaacaac ttcanccggn ttctctentc atcangtctc 60
acntnaaggg gcaagtacna tgntgagctt atcgccaatg ctgcgtacat tggcactcct 120
ggaaagggta ttcttgctgc tgatgngtca acagggacaa ttggcaagcg tttggccagn 180
catcagtgtg gagaacattg aatccaacag gngnnctctt agggagcngg ctttnactgc 240
tcttggnnat ctcantnnnn nnntngtgtc gtcc 274

<210> 1929
<211> 228
<212> nucleic acid
<213> Glycine max

<400> 1929

ctcaagtcca gcctacccct ttttcttctc ccaccaactt caccgtcttc ttcctcgatc 60

atgtctcact tcaagggcaa gtaccatgat gagcttattg tcaatgctgc ttacattggc 120

actcctggaa agggatttca tgctgctgat gagtcaacag ggacaattgg caagcgtttg 180

tccagcatca gtgtaggcga tgttgaatcc aacaggcgtg ctcttagg 228

<210> 1930

<211> 112

<212> nucleic acid

<213> Glycine max

<400> 1930

gtcccaacga gccatctgag ctggctatcc atgagaatgc ctatggcttg gccagatacg 60

ctgtcatatg ccaggagaat ggcttggttc ccattgttga gcctgagatc ct 112

<210> 1931

<211> 190

<212> nucleic acid

<213> Glycine max

<400> 1931

gcccttttgg taagagccaa ggctaactca gaggcaactc tgggaacctt caagggtaac 60

tccacagcttg ctgatggtgc ctgagagagc ctccatgttt cgaactacag ctactgatca 120

atcgaagttg gtgttggttg aagagactag tgcgagtagg aatcggtatt atgggtacaa 180

caaccgaatt 190

<210> 1932

<211> 92

<212> nucleic acid

<213> Glycine max

<400> 1932

ggccaactca gaggcaactc tggggaaacct acaagggtaa ctcaaagctt gctgatggtg 60

cctcagagag cctccatgtt gaggactaca ag 92

<210> 1933

<211> 232

<212> nucleic acid

<213> Glycine max

<400> 1933

ggctaactca gaggcaactc tgggaacctc caagggtaac tcacagcttg ctgatgggtgc 60
ctcagagagc ctccatgttt cgaactacag ctactgatca atcgaagttg gtgttggttg 120
aagagactag tgcgagtagg aatcgggtatt atgggtacaa caaccgaatt tcttggtgat 180
aagtattatt gtggtttgac tcttcccaga ataatcggtt ggaattttgc tt 232

<210> 1934

<211> 148

<212> nucleic acid

<213> Glycine max

<400> 1934

ctctaacctc cctctttttc ttctctctca acaacttcac cttcttctc ctcgatcatg 60
tctcaacttc agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120
cctggaaagg ctgtctggcc acagactt 148

<210> 1935

<211> 92

<212> nucleic acid

<213> Glycine max

<400> 1935

cggtctgaga gaatgttgaa tccatcaggc gggtcttag ggagatgctt ttaaccgcta 60
ccggtgatct taaatatctc agtgggtgtc tc 92

<210> 1936

<211> 144

<212> nucleic acid

<213> Glycine max

<400> 1936

ctacctcttt ttcttctctc tcaacaactt caccttcttc ctctctgac atgtctcact 60
tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
agggtattct tgctgctgat gagt 144

<210> 1937

gccaaaacag tgggtcaccg gggcgtggta ttttggcgat ggatgagtca aatgcaactg 240
cggaagcgt ttggcatcta ttgggttaga gaacacagaa gta 283

<210> 1940
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 1940

ggttgcttgg cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc 60
tcaagtcata tctgttctt gacaagtgcg agtgggtcaa aggccagacc ctctcgccaac 120
ctctcgtgag tgtaaccctt cctcagcatt agctctcacc atcaaagctg ctctctatgc 180
tgacgagctc gtcaaaaccg ccaaaacagt ggctcaccg gggcgtggta ttttggcgat 240
ggatgagtca aatgcaa 257

<210> 1941
<211> 240
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (30), (32)
<223> unsure at all n locations

<400> 1941

gcggggataa gattagagat tcaactgtatn gnctctgctt ctgctactcg tctcaagtca 60
tctctgttct ttgacaagtg cgggtgggtc agaggccaga cccttcgcca acctctcgtg 120
agatgtaacc ctctctcagc atcagctctc accatcaaag ctgcttccta tgctgacgac 180
gtcgtcaaaa ccgcaaaaac agtggcctca ccggggcgtg gtattttggc gatggatgag 240

<210> 1942
<211> 280
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (83), (217), (232), (241) ... (242), (248), (267) ... (268),
(275), (277) ... (279)
<223> unsure at all n locations

<400> 1942

ggggataaga ttaaagattc aacaatggcc tctgcttctg ctactcttct caagtcacat 60

cctgttcttg acaagtgcga gtnggtcaaa ggccagaccc ttcgccaacc tctcgtgaga 120

tgtaaccctt cctcagcatc agctctcacc atcaaagctg cttcctatgc tgacgagctc 180

gtcaaaaccg gccaaaacag tgggcttcac cgggggncgt gggaatttgg gngatggatg 240

nngtcaangg caaccttggg ggaaggnntt tggcntnnnt 280

<210> 1943

<211> 240

<212> nucleic acid

<213> Glycine max

<400> 1943

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60

tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120

atgtaaccct ccctcagcat cagctctcac catcaaagct gcttcctatg ctgacgagct 180

cgtcaaaacc gccaaaacag tggcctcacc ggggcgtggg attttggcga tggatgagtc 240

<210> 1944

<211> 174

<212> nucleic acid

<213> Glycine max

<400> 1944

ataagattaa agattcaaca atggcctctg cttctgctac tcttctcaag tcatctcctg 60

ttcttgacaa gtgcgagtgg gtcaaaggcc agacccttcg ccaacctctc gtgagatgta 120

acccttctc agcatcagct ctcaccatca aagctgcttc ctatgctgac gagg 174

<210> 1945

<211> 234

<212> nucleic acid

<213> Glycine max

<400> 1945

aagattaaag attcaacaat ggctctctg tctgctactc ttctcaagtc atctcctgtt 60

gttgacaagt gcgagtgggt caaaggccag acccttcgcc aacctctcgt gagatgtaac 120

ccttcctcag catcagctct caccatcaaa gctgcttcct atgctgacga gctcgtcaaa 180
accgcaaaa cagtggcctc accggggcgt ggtattttgg cgatggatga gtca 234

<210> 1946
<211> 186
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (156), (180), (183)... (184)
<223> unsure at all n locations

<400> 1946

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcanagct gcttcctatg ctgacgagan 180
cgnaaa 186

<210> 1947
<211> 175
<212> nucleic acid
<213> Glycine max

<400> 1947

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcaaagct gcttcctatg ctgac 175

<210> 1948
<211> 168
<212> nucleic acid
<213> Glycine max

<400> 1948

cggggataag attaaagatt caacaatggc ctctgcttct gctactcttc tcaagtcac 60
tcctgttctt gacaagtgcg agtgggtcaa aggccagacc cttcgccaac ctctcgtgag 120
atgtaaccct tcctcagcat cagctctcac catcaaagct gcttccta 168

<210> 1949
 <211> 120
 <212> nucleic acid
 <213> Glycine max

<400> 1949

atcggtttcc cgccatatat ccaataagct ttaaccatgt ctgcctttgt tggaaagtac 60
 gcagatgagc ttatcaagaa tgccaagtac atagccacac ctgggaaggg catcttggca 120

<210> 1950
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 1950

caaagctcaa caccttgtct tcccagtggc tcgcccacaa ttccttctct cctcgccgtg 60
 gatcctcttc tcgccgagtc tctcttccga tccgcgcttc ttcttaccaa cacgaactct 120
 tccaaaccgc caaatctatt gcatctcccg gtcgtggaat tcttgcaatt gatgaatcaa 180
 atgccacatg tgggaagcgt ttagcatcca ttggattgga caatactgag gtgaatcgcc 240
 aggcttatag gcaact 256

<210> 1951
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 1951

accactttct gtttctcttc actctaattg ccatggcagc gtctncaaag ctcaacacct 60
 tgtcttcttc ccagtggatc gccacaatt ccttctctcc tcgccgtgga tcctcttctc 120
 gccgagtctc tcttccgacg cgcgcttctt cttaccaaca cgaactcgtc caaaccgcca 180
 aatccattgc atcaccgggc cgtggaattc ttgcaattga tgaatcaa at gccacatgtg 240
 ggaaacgatt agcatccatt ggattggaca ataccgaggt 280

<210> 1952
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 1952

ctttctcttt ctcttcaact taaagtctaa gcatccatgg ccatggcgctc tgcaaagctc 60
 aacaccttgt cttcccagtg gatcgccac aattccttct ctctcgccg tggatcctct 120
 tctcgccgag tctctcttcc gatccgctt tcttcttacc aacacgaact cgtccaaacc 180
 gccaaatcta ttgcatctcc cggtcgtgga attcttgcaa ttgatgaatc aaatgccaca 240
 tgtgggaagc gtttagcatc cattggat 268

<210> 1953
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1953

actttctggt tctcttcaact ctaatggcca tggcagcgctc tgcaaagctg cacaccttgt 60
 cttcttccca gtggatcgcc cacaattcct tctctcctcg ccgtggatcc tcttctcgcc 120
 gagtctctct tccgatccgc gcttcttctt accaacaaga actcgtccaa accgccaaat 180
 ccattgcac acccgccgct ggaattcttg caattgatga atcaaatgcc acatgtggga 240
 aacgattagc atccattgga tt 262

<210> 1954
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1954

ctctaagcat ccatggccat ggcgtctgca aagctcaaca ccttgtcttc ccagtggatc 60
 gccacaatt cttctctctc tcgccgtgga tcttcttctc gctgagttct gtcttccgat 120
 ccgcgcttct tcttaccac acgaactcgt ccaaaccgcc agatctattg catctcccgg 180
 tcgtggaatt cttgcaattg atgaatcaaa tgccacatgt gggaagcggt tagcatccat 240
 tggattggac aatactgagg tg 262

<210> 1955
 <211> 187
 <212> nucleic acid
 <213> Glycine max

<400> 1955

gcaaagctca acaccttgtc ttcttcccag tggatcgccc acaattcctt ctctcctcgc 60
 cgtcgatcct cttctcgccg agtctctctt ccgatccgcg cttcttctta ccaacacgaa 120
 ctcttccaaa ccgccaaatc cattgcatca cccggccgtg gaattcttgc aattgatgaa 180
 tccaaat 187

<210> 1956
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 1956

tacagcccca ctttctcttt ctctttctct tcaactctaa gtctaagcat ccatggccat 60
 ggcgtctgca aagctcaaca ccttgtcttc ccagtggatc gccacaatt cttctctctc 120
 tcgccgtgga tctctctctc gccgagtctc tcttccgatc cgcgcttctt cttaccaaca 180
 cgaactcgtc caaaccccca aatctattgc atctcccggt cgtggaattc ttgcaatgga 240
 tgaatc 246

<210> 1957
 <211> 289
 <212> nucleic acid
 <213> Glycine max

<400> 1957

ctccccaatt ctcaagccaa ccatgtcttc cttcaagagc aagtaccaag atgaactcat 60
 tgccaatgct gcttacattg gcaccccagg gaagggatc cttgctgctg atgagtcaac 120
 tgggtacaatt ggcaagcgat tggccagcat taatgtcgag aatggtgaag caaataggcg 180
 tgctcttcgt gaactcctat tcaccacacc tgggtgcttt gagtgccctca gtgggtgtgat 240
 cttgtttgag gaaaccctat accaaaagac agcttcagga aaacccttc 289

<210> 1958
 <211> 284

<212> nucleic acid
 <213> Glycine max
 <400> 1958

cctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca ttgccaatgc 60
 tgcttacatt ggcaccccag ggaaggggtat ccttgctgct gatgagtcaa ctggtacaat 120
 tggcaagcga ttggccagca ttaatgtcgg aatgttgaag caaataggcg tgctcttcgt 180
 gaactcctat tcaccacacc tgggtgctttt gagtgcctca gtggtgtgat cttgtttgag 240
 gaaaccctat accaaaagac agcttcagga aaacccttcg taga 284

<210> 1959
 <211> 290
 <212> nucleic acid
 <213> Glycine max
 <400> 1959

cttctgcaaa accaaccaaa cccctcccca attctcaagc caaccatgtc ttccttcaag 60
 agcaagtacc aagatgaact cattgccaat gctgcttaca ttggcacccc aggaaggggt 120
 atccttgctg ctgatgagtc aactggtaca attggcaagc gattggccag cattaatgtc 180
 gagaatgttg aagcaaatag gcgtgctctt cgtgaactcc tattcaccac acctggtgct 240
 tttgagtgcc tcagtgggtg gatcttggtt gaggaacccc tataccaaaa 290

<210> 1960
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (200)
 <223>

<400> 1960

cctccccaat tctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca 60
 ttgccaatgc tgcttacatt ggcaccccag ggaaggggtat ccttgctgct gatgagtcaa 120
 ctggtacaat tggcaagcga ttggccagca ttaatgtcga gaatgttgaa gcaaataggc 180
 gtgctcttcg tgaactcctn ttcaccacac ctggtgcttt tgagtgcctc agtgggtgtga 240

tcttgtttga ggaaacccta tacc 264

<210> 1961
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 1961

caattctcaa gccaaacctg tcttccttca agagcaagta ccaagatgaa ctcaattgcc 60
 atgctgctta cattggcacc ccagggaagg gtatccttgc tgctgatgag tcaactggta 120
 caattggcaa gcgattggcc agcattaatg tcgagaatgt tgaagcaaat aggcgtgctc 180
 ttcgtgaact cctattcacc acacctgggtg cttttgagtg cctcagtggg gtgatcttgt 240
 ttgaggaaac cctataccaa aaga 264

<210> 1962
 <211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 1962

gtctttctcac ttcgtcaaaa ccaaccaaac ccctcccca ttctcaagcc aacctgtct 60
 tccttcaaga gcaagtacca agatgaactc attgccaatg ctgcttacat tggcacccca 120
 ggggaagggt taacttgcgc tgatgagtc actggtacaa ttggcaagcg attggccagc 180
 attaattgtcg agaattgtga agcaaatagg cgtgctcttc gtgaactcct attcaccaca 240
 cctggtgctt tagagtgcct cagtgggtgtg atct 274

<210> 1963
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 1963

cctccccaat tctcaagcca accatgtctt ccttcaagag caagtaccaa gatgaactca 60
 ttgccaatgc tgcttacatt ggcacccag ggaagggtat ccttgctgct gatgagtcaa 120
 ctggtacaat tggcaagcga ttggccagca ttaatgtcga gaatgttgaa gcaaataaggc 180
 gtgctcttcg tgaactccta ttcaccacac ctggtgcttt tgagtgcctc agtgggtgtga 240

<210> 1964
 <211> 280
 <212> nucleic acid
 <213> Glycine max

 <400> 1964

 ccgttgtctt ctcacttcgt caaaaccaac caaaccctc cccaattctc aagccaacca 60
 tgtcttcctt caagagcaag taccaagatg aactcattgc caatgctgct tacattggca 120
 cccaggggaa gggatcctt gctgctgatg agtcaactgg tacaattggc aagcgattgg 180
 ccagcattaa tgcgagaat gttgaagcaa ataggcgtgc tcttcgtgaa ctcctattca 240
 ccacacctgg tgcttttgag tgcctcagtg gtgtgatctt 280

<210> 1965
 <211> 277
 <212> nucleic acid
 <213> Glycine max

 <400> 1965

 cgatgtcttc tcacttcgtc aaaaccaacc aaaccctcc ccaattctca agccaaccat 60
 gtcttccttc aagagcaagt accaagatga actcattgcc aatgctgctt acattggcac 120
 cccaggggaa ggtatccttg ctgctgatga gtcaactggg acaattggca agcgattggc 180
 cagcattaat gtcgagaatg ttgaagcaaa taggcgtgct cttcgtgaac tcctattcac 240
 cacacctggg gcttttgagt gcctcagtggt tgtgatc 277

<210> 1966
 <211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 1966

 ccgttgtctt ctcacttcgt caaaaccaac caaaccctc cccaattctc aagccaacca 60
 tgtcttcctt caagagcaag taccaagatg aactcattgc caatgctgct tacattggca 120
 cccaggggaa gggatcctt gctgctgatg agtcaactgg tacaattggc aagcgattgg 180
 ccagcattaa tgcgagaat gttgaagcaa ataggcgtgc tcttcgtgaa ctcctattca 240
 ccacacctgg tgcttttgag tgctc 266

<210> 1967
 <211> 260
 <212> nucleic acid
 <213> Glycine max

 <400> 1967

 cttctcactt cgtcaaaacc aaccaaacc ctccccaatt ctcaagccaa ccatgtcttc 60
 cttcaagagc aagtaccaag atgaactcat tgccaatgct gcttacattg gcaccccagg 120
 gaagggatc cttgctgctg atgagtcaac tggtagaatt ggcaagcgat tggccagcat 180
 taatgtcgag aatgttgaag caaataggcg tgctcttcgt gaactcctat tcaccacacc 240
 tgggtgctttt gagtgcctca 260

<210> 1968
 <211> 247
 <212> nucleic acid
 <213> Glycine max

 <400> 1968

 cgttgtcttc tcaattcgtc aaaaccaacc aaaccctcc ccaattctca agccaaccat 60
 gtcttccttc aagagcaagt accaagatga actcattgcc aatgctgctt acattggcac 120
 cccaggggaag ggtatccttg ctgctgatga gtcaactggc acaattggca agcgattggc 180
 cagcattaat gtcgagaatg ttgaagcaaa taggcgtgct cttcgtgaac tcctattcac 240
 cacacct 247

<210> 1969
 <211> 272
 <212> nucleic acid
 <213> Glycine max

 <400> 1969

 cctcgagcga atcggtcga gcgttgtctt ctcaattcgt caacgaccaa ccaaaccct 60
 cccaattct caagccaacc atgtcgtcct tcaagagcaa gtaccaagat gaactcattg 120
 ccaatgctgc ttacattggc accccagggga agggatcct tgctgctgat gagtcaactg 180
 gtacaattgg caagcgattg gccagcatta atgtcgagaa tgttgaagca aataggcgtg 240
 ctcttcgtga actcctattc accacacctg gt 272

gaccgcgaaa acagtggctt caccagggag gggatatttg gccatggatg agtccaatgc 240
tacctgtggg aagcgtttgg cttcattggg ctagagacat gaagct 286

<210> 1982
<211> 229
<212> nucleic acid
<213> Glycine max

<400> 1982

catctctgct caagtcttca cttgttcttg acaagtctga gtgggtgaag ggacaaaccc 60
ttcgccaacc ttctgcatca gttgtgagat gcaacccac caccatca ggctcacca 120
tcagagctgg ttctatgct gatgagctcg ttaagaccgc gaaaacagtg gcttcaccag 180
ggaggggtat tttggccatg gatgagtcca atgctacctg tgggaagcg 229

<210> 1983
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 1983

gacaagtctg agtgggtgaa gggacaaaca cttcgccaac cttctgctgc atcagttgtg 60
agatgcaacc ccaccacccc atcaggcctc accatcagag ctggttccta tgctgatgag 120
ctcgtaaga ccgcgaaacc agtggcttca ccaggaggag gtattatggc catggatgag 180
tccaatgcta cctgtgggaa gcgtttggct tcaattgggc tagagaacac tgaagctaac 240
cgccagcata ccgtaccctc ctt 263

<210> 1984
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1984

gcagtagtgc taagtgctaa cacctgcagt gaacaatggc ctctgcatca gcatctctgc 60
tcaagtcttc acttgttctt gccagtctg agtgggtgaa gggacaaacc cttcgccaac 120
cttctgcata agttgtcaga tgcaacccca ccaccatc aggcctcacc atcagagctg 180
gttctatgc tgatgagctc gttaagaccg cgaaaacagt ggcttcacca gggaggggta 240

ttttggccat ggatgagtc actgctacct gtgg

274

<210> 1985
 <211> 293
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (9), (29), (64), (132), (168), (281)
 <223> unsure at all n locations

<400> 1985

tacaaaggnt gctgtaggag ataagattnc agtagtgcta agtgctaaca cctgcagtga 60
 acantggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gncaaaccct tcgccaacct tctgcatcag ttgtgagntg caaccccacc 180
 accccatcag gcttcacat cagagctggg tccatgctg atgagctcgt taagaccgag 240
 aaaacagtgg cttcaccaag gaggggtatt ttggccatgg ntgagtccaa tgc 293

<210> 1986
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 1986

gattgcagta gtgctaagt ctaacacctg cagtgaacaa tggcctctgc atcagcatct 60
 ctgctcaagt cttcacttgt tcttgacaag tctgagtggg tgaagggaca aacccttcgc 120
 caaccttctg catcagttgt gagatgcaac cccaccaccc catcaggcct caccatcaga 180
 gctggttccct atgctgatga gctcgtaag accgcgaaaa cagtggcttc accagggagg 240
 ggtatttttg ccatggatga gtcca 265

<210> 1987
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 1987

aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60

atggcctctg catcagcatc tctgctcaag tcttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacccttcg ccaacccttct gcatcagttg tgagatgcaa cccaccacc 180
 ccatcaggcc tcaccatcag agctgggtcc tatgctgatg agctcgtaa gaccgcgaaa 240
 acagtggctt caccagggag gggatattttg gccatggatg ag 282

<210> 1988
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 1988

tagtgctaag tgctaacacc tgcagtgaac aatggcctct gcatcagcat ctctgctcaa 60
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 tgcacagtt gtgagatgca accccaccac cccatcaggc ctcaccatca gagctgggtc 180
 ctatgctgat gagctcgtaa agaccgcgaa aacagtggct tcaccagggga ggggtatttt 240
 ggacatggat g 251

<210> 1989
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1989

cggctcgagg gagataagat tgcagtagtg ctaagtgcta acacctgcag tgaacaatgg 60
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 agggacaaac ccttcgcaa ccttctgcat cagttgtgag atgcaacccc accaccccat 180
 caggcctcac catcagagct ggttcctatg ctgatgagct cgttaagacc gcgaaaacag 240
 tggettcacc agggaggggt attttggcca tgg 273

<210> 1990
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<400> 1990

cagattgcag tagtgctaag tgctaacacc tgcagtgaac aatggcctct gcatcagcat 60

ctctgctcaa gtcttcactt gttcttgaca agtctgagtg ggtgaaggga caaacccttc 120
 gccaaccttc tgcattcagtt gtgagatgca accccaccac cccatcaggc ctcaccatca 180
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 ggggtattcc tcccatggat gagctcaatg ctccctgtgg gaagcg 286

<210> 1991
 <211> 272
 <212> nucleic acid
 <213> Glycine max

<400> 1991

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacc tgcagtgaac 60
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 ggtgaaggga caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
 cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgta agaccgcgaa 240
 aacagtggct tcaccagga ggggtatttt gg 272

<210> 1992
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 1992

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
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 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccacc 180
 acccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttggccatgg 280

<210> 1993
 <211> 284
 <212> nucleic acid
 <213> Glycine max

<400> 1993

aaggttgctg taggagataa gattgcagta gtgctaagt ctaacacctg cagtgaacaa 60

tggcctctgc atcagcatct ctgctcaagt cttcacttgt tcttgacaag tctgagtggg 120
tgaagggaca aacccttcgc caaccttctg catcagttgt gagatgcaac cccaccaccc 180
catcaggcct caccatcaga gctggttcct atgctgatga gctcgttaag accgcgaaaa 240
cagtggttca ccagggaggg gtattttggc catggatgag tcca 284

<210> 1994
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 1994

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
aaaacagtgg cttcaccagg gaggggtatt ttgg 274

<210> 1995
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 1995

aggagataag attgcagtag tgctaagtgc taacacctgc agtgaacaat ggctcttgca 60
tcagcatctc tgctcaagtc ttcacttgtt cttgacaagt ctgagtgggt gaagggacaa 120
acccttcgcc aaccttctgc atcagttgtg agatgcaacc ccaccacccc atcaggcctc 180
accatcagag ctggttccta tgctgatgag ctcgttaaga ccgcgaaaac agtggcttca 240
ccagggaggg gt 252

<210> 1996
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 1996

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcaagtgaac 60

aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcacagtt gtgagatgca accccaccac 180
 cccatcaggc ctcacatca gagctgggtc ctatgctgat gagctcgta agaccgcga 240
 aacagtggct tcaccaggga ggggtattt 269

<210> 1997
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 1997

ctcgagccga taagattgca gtagtgctaa gtgctaacac ctgcagtga caatggcctc 60
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 acaaacctt cgcaaccttc tgcacagtt gtgagatgca accccaccac cccatcaggc 180
 ctcacatca gagctgggtc ctatgctgat gagctcgta agaccgcga aacagtggct 240
 tcaccaggga ggggta 256

<210> 1998
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 1998

ggctcataca aagggtgctg aggagataag attgcagtag tgctaagtgc taacacctgc 60
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 ctgagtgggt gaagggacaa acccttcgcc aaccttctgc atcagttgtg agatgcaacc 180
 ccaccacccc atcaggcctc accatcagag ctggttccta tgctgatgag ctcgttaaga 240
 ccgcgaaaac agtggcttca ccaggaggg gta 273

<210> 1999
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 1999

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcaatgaac 60

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 acgccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggt 267

<210> 2003
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2003

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 caaccttctg catcagttgt gagatgcaac cccaccaccc catcaggcct caccatcaga 180
 gctggttcct atgctgatga gctcgttatc accgcgaaaa cagtggcttc accagggagg 240
 ggtatttt 248

<210> 2004
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2004

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
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 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcacca 258

<210> 2005
 <211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 2005

aggttgctgt aggagataag attgcagtag tgctaagtgc taatgcctgc agtgaacaat 60

acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcac 256

<210> 2009
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<400> 2009

ggttgctgta ggagataaga ttgcagtagt gctaagtgct aacacctgca gtgaacaatg 60
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 aagggacaaa cccttcgcca accttctgca tcagttgtga gatgcaaccc caccacccca 180
 tcaggcctca ccatcagagc tggttcctat gctgatgagc tcgttaagac cgcgaaaaca 240
 gtggcttcac cag 253

<210> 2010
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2010

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 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagatggcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttg 273

<210> 2011
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2011

aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60

<400> 2014

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ggtgaagggg caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180

cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgta agaccgcga 240

aacagtggct tcaccatgga ggggt 265

<210> 2015

<211> 255

<212> nucleic acid

<213> Glycine max

<400> 2015

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aacaatggcc tctgcatcag catctctgct caagtcttca cttgttcttg acaagtctga 120

gtgggtgaag ggacaaaccc ttgcgcaacc ttctgcatca gttgtgagat gcaacccac 180

caccccatca ggctcacca tcagagctgg ttcttatgct gatgagctcg ttaagaccgc 240

gaaaacagtg gcttc 255

<210> 2016

<211> 264

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (195)...(196), (258)

<223> unsure at all n locations

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gggtgaaggg acaaaccctt cgccaacctt ctgcatcagtt gtgagatgc aacccaccca 180

cccatcagg cctcnnctc agagctgggt cctatgctga tgagctcggt aagaccgcga 240

aaacagtggc ttcaccangg aggg 264

<210> 2017
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2017

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 ggtgaaggga caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
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 aacagtggct 250

<210> 2018
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2018

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 ggtgaaggga caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
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 aacagtggct 250

<210> 2019
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2019

caaaggttgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60
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 ggtgaaggga caaacccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
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 aacagt 246

<210> 2020
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 2020

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 ggggtgagggg acaaaccctt cgccaacctt ctgcattcagt tgtgagatgc aacccaccca 180
 ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgtt aagaccgcca 240
 aaacagtggc tt 252

<210> 2021
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2021

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
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 tgggtgaagg gacaaaccct tcgccaacct tctgcattcag ttgtgagatg caacccacc 180
 accccatcag gcctcaccat cagagctgggt tcctatgctg atgagctcgt taagaccgca 240
 aaaacagt 248

<210> 2022
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2022

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 ggtgaaggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
 cccatcaggc ctcaccatca gagctgggtc ctatgctgat gagctcgtta agaccgcaa 240
 aacagtggct tcaccaggga 260

1. The first step is to identify the key components of the system. This involves understanding the hardware, software, and data involved.

caaagggttgc	tgtaggagat	aagattgcag	tagtgctaag	tgctaacacc	tgcagtgaac	60
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ggtgaaggga	aaacccttcg	ccaacccttc	gcatcagttg	tgagatgcaa	ccccaccacc	180
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acagtggctt	cacc					254

<400> 2024

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gacgggacaa	acccttcgcc	aaccttctgc	atcagttgtg	agatgcaacc	gcaccacccc	180
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agtggcttca	ccaggggag					258

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<220>
<221>      unsure
<222>      (13), (62), (92), (179), (231), (253), (266)
<223>      unsure at all n locations
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acaaaggttg ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60
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 aaacgtggct tcacc 255

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 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (96)
 <223>

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 agtctgagtg ggtgaaggga caaacccttc gccaaccttc tgcatacagt gtgagatgca 180
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 agaccgcaaa aacagtggtc tcacc 265

<210> 2030
 <211> 241
 <212> nucleic acid
 <213> Glycine max

<400> 2030
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 a 241

<210> 2031
 <211> 266

[illegible]

<212> nucleic acid
<213> Glycine max

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gggtgaaggg acaaaccctt cgccaaccctt ctgcatcagt tgtgagatgc aacccaccca 180
ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcggt aagaccg 237

<210> 2035
<211> 258
<212> nucleic acid
<213> Glycine max

<400> 2035

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agcttcacca tggagggg 258

<210> 2036
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2036

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agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgctgcatca gttgtgagat 180
gcaacccac caccatca ggctcacia tcagagctgg ttcctatgct gatgagctcg 240
ttaagaccgc gaaaacagtg gcttcaccag ggagggg 277

<210> 2037
<211> 258
<212> nucleic acid
<213> Glycine max

CGS2034-2037

<400> 2037

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tgggtgaagg gacaaacctt tcgccaacct tctggcatca gttgtgagat gcaaccccccac 180

caccccatca ggctcacca tcagagctgg ttccatgct gatgagctcg ttaagaccgc 240

gaaaacagtg gcttcacc 258

<210> 2038

<211> 234

<212> nucleic acid

<213> Glycine max

<400> 2038

acaaaggttg ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60

caatggcctc tgcacacgca tctctgctca agtcttcact tgttcttgac aagtctgagt 120

gggtgaaggg acaaaccctt cgccaacctt ctgcacagt tgtgagatgc aaccccccac 180

cccatcagg cctcaccatc agagctgggtt cctatgctga tgagctcggtt aaga 234

<210> 2039

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 2039

tacaactaca aaggttgctg taggagataa gatattgaag tagtgctaag tgcctaacac 60

ctgcagtga caatggcctc tgcacacgca tctcttctca agtcttcact tgttcttgac 120

aagtctgagt gggtgaaggg acaaacactt cgccaacctt ctgctgcac agttgtgaga 180

tgaaccccca ccaccccatc aggctcaca atcagagctg gttccatgc tgatgagctc 240

gttaaga 247

<210> 2040

<211> 260

<212> nucleic acid

<213> Glycine max

<400> 2040

<211> 238
 <212> nucleic acid
 <213> Glycine max

 <400> 2043

 ggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct gcagtgaaca 60
 atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg caacccccacc 180
 acccatcag gcctcaccat cagagctggg tcttatgctg atgagctcgt taagaccg 238

<210> 2044
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (62), (106), (157), (163), (206), (254)
 <223> unsure at all n locations

 <400> 2044

 ctacaaaggt tgctgtagga gataagattg cagtagtgct aagtgctaac acctgcagtg 60
 ancaatggcc tctgcatcag catctctgct caagtcttca cttgtncctg acaagtctga 120
 gtgggtgaag ggacaaaccc ttcgccaacc ttctgentca gtngtgagat gcaacccccac 180
 cccccatca ggctcacca tcaganctgg tcttatgct gatgagtcgt taagaccgcg 240
 aaaacagtgg ttcnccaggg 260

<210> 2045
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 2045

 aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct gcagtgaaca 60
 atggcctctg catcagcatc tctgctcaag tcttcacttg ttcttgacaa gtctgagtgg 120
 gtgaagggac aaaccttcg ccaaccttct gcatcagttg tgagatgcaa cccaccacc 180
 ccatcaggcc tcaccatcag agctgggtcc tatgctgatg agc 223

<210> 2046
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2046

aactacaaag gttgctgtag gagataagat attgaagtag tgctaagtgc ctaacacctg 60
 cagtgaacaa tggcctctgc atcagcatct cttctcaagt cttcacttgt tcttgacaag 120
 tctgagtggg tgaagggaca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
 aacccccacca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcggt 240
 aag 243

<210> 2047
 <211> 245
 <212> nucleic acid
 <213> Glycine max

<400> 2047

caactacaaa gggtgctgta ggagataaga tattgaagta gtgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg 180
 caacccccacc acccatcag gcctcacaat cagagctgggt tcctatgctg atgagctcgt 240
 taaga 245

<210> 2048
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2048

gcaactacaa aggttgctgt aggagataag atattgaagt agtgctaagt gcctaacacc 60
 tgcagtgaac aatggcctct gcatcagcat ctcttctcaa gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgctgcatca gttgtgagat 180
 gcaacccccac cccccatca ggctcacaa tcagagctgg ttcctatggc tgatgagctc 240
 gttaagaccg cgaaaacagt ggcttcacca ggg 273

agatgcaacc ccaccacccc atcaggcctc accatcagag ctgggttccta tgctgatgag 240
ctcgt 245

<210> 2052
<211> 220
<212> nucleic acid
<213> Glycine max

<400> 2052

tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
accccatcag gcctcaccat cagagctggg tcctatgctg 220

<210> 2053
<211> 221
<212> nucleic acid
<213> Glycine max

<400> 2053

cggtctgagg ttgtgtagg agataagatt gcagtagtgc taagtgctaa cacctgcagt 60
gaacaatggc ctctgcatca gcctctctgc tcaagtcttc acttgcttctt gacaagtctg 120
agtgggtgaa gggacaaacc ctctgccaac cttctgcatc agttgtgaga tgcaacccca 180
ccaccccatc aggcctcacc atcagagctg gttcctatgc t 221

<210> 2054
<211> 256
<212> nucleic acid
<213> Glycine max

<400> 2054

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60
gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
gtctagtggg tgaagggaca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
aaccccacca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgtt 240
aagaccgcga aaacag 256

CCCTGCTGTA

<210> 2058
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (163), (185), (214), (218), (222), (231), (238)
 <223> unsure at all n locations

<400> 2058

acaactacaa aggttgctgt aggagataag atattgaagt agtgctaagt gcctaacacc 60
 tgcagtgaac aatggcctct gcatcagcat ctcttctcaa gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgnccgcatca gttgtgagat 180
 gcaancccaa caaccatttc aggctcaaa atcngagntg gntccctatgc ngatgagntc 240
 ggcaagaccg cgaa 254

<210> 2059
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2059

acaactacaa aggttgctgt aggagataag atattgaagt agtgctaagt gcctaacacc 60
 tgcagtgaac aatggcctct gcatcagcat ctcttctcaa gtcttcactt gttcttgaca 120
 agtctgagtg ggtgaaggga caaacacttc gccaaccttc tgcctgcatca gttgtgagat 180
 gcaacccac caccatca ggctcacca tcagagctgg ttccctatgct gatgagctcg 240
 ttaagaccgc gaaaacagtg 260

<210> 2060
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 2060

tacaaaggtt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcage atctctgctc aagtcttcac ttgttcttga caagtctgag 120

tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 accccatcag gcttcacccat cagagctggg tgctatgctg atga 224

<210> 2061
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2061

tacaaagggt gctgtaggag ataagatatt gaagtagtgc taagtgccta acacctgcag 60
 tgaacaatgg cctctgcac agcatctctt ctcaagtctt cacttgttct tgacaagtct 120
 gagtgggtga agggacaaac acttcgcca ccttctgctg catcagttgt gagatgcaac 180
 cccaccaccc catcaggcct caccatcaga gctgggttct atgctgatga gctcgtaa 239

<210> 2062
 <211> 220
 <212> nucleic acid
 <213> Glycine max

<400> 2062

caaagggtgc tgtaggagat aagattgcag tagtgctaag tgctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcaact gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcacagtt gtgagatgca accccaccac 180
 cccatcaggc ctcacccatca gagctgggtc ctatgctgat 220

<210> 2063
 <211> 227
 <212> nucleic acid
 <213> Glycine max

<400> 2063

atacaaagggt tgctgtagga gataagattg cagtagtgct aagtgctaac acctgcagtg 60
 aacaatggcc tctgcatcag catctctgct caagtcttca cttgttcttg acaagtctga 120
 gtgggtgaag ggacaaaccc ttcgccaacc ttctgcatca gttgtgagat gcaacccac 180
 cccccatca ggccacacca tcagagctgg tccctatgct gatgagc 227

<210> 2064

<211> 252
 <212> nucleic acid
 <213> Glycine max

<400> 2064

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagtg cctaacacct 60
 gcagtgcaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa 120
 gtctgagtgg gtaagggaca aacacttcgc caaccttctg ctgcatcagt tgtgagatgc 180
 aacccaccca ccccatcagg cctcaccatc agagctgggt cctatgctga tgagctcgta 240
 gaccgcgaaa ac 252

<210> 2065
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (37), (202), (226), (246) ... (247), (258)
 <223> unsure at all n locations

<400> 2065

caaaggttgc tgtaggagat aagattgcag tagtgencag tgctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccca 180
 ccccatcagg gcctcaccat cngagctgggt tctatgctga tgagcncgtt aaagaccgcg 240
 gaaacnntgg gtttcacnag ggggg 265

<210> 2066
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2066

caaaggttgc tgtaggagat aagaatgcag tagtgctaag tcctaacacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcattcagtt gtgagatgca accccaccac 180
 cccatcagge ctca 194

<210> 2067
 <211> 191
 <212> nucleic acid
 <213> Glycine max

<400> 2067

ctcatacaaaa ggttgctgta ggagataaga ttgcagtagt gctaagtgt aacaggtgca 60
 gtgaacaatg gcctctgcat cagcatctct gctcaagtct tcaattgttc ttgacaagtc 120
 tgagtgggtg aagggaacaaa cccttcgcca accttctgca tcagttgtga gatgcaaccc 180
 caccacccca t 191

<210> 2068
 <211> 189
 <212> nucleic acid
 <213> Glycine max

<400> 2068

catacaaaagg ttgctgtagg agataagatt gcagtagtgc taagtgttaa cacctgcagt 60
 gaacaatggc ctctgcatca gcatctctgc tcaagtcttc acttgttctt gacaagtctg 120
 agtgggtgaa gggacaaaacc ctctcgccaac cttctgcctc agttgtgaga tgcaacccca 180
 ccaccccat 189

<210> 2069
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2069

ctacaaaggt tgctgtagga gataagatat tgaagtagtg ctaagtgcct aacacctgca 60
 gtgaacaatg gcctctgcat cagcatctct tctcaagtct tcaattgttc ttgacaagtc 120
 tgagtgggtg agggacaaaac acttcgcca cttctgctg catcagttgt gagatgcaac 180
 cccaccaccc catcaggcct cacaatcaga gctgggttcct atgctgatga gctcgt 236

<210> 2070
 <211> 244
 <212> nucleic acid
 <213> Glycine max

ttgttcttga ctagtttgag tgcgtgaagg gacaaacact tcgccaacct tctgctgcat 120
 cagttgtgag atgcaacccc accactcctt caggcctcac catcagagct gtttcctatg 180
 ctgatgagct ctttaagacc gcgaaaacag tggcttcacc tcggaggggt attttggcca 240
 tgtctgagtc cactgctccc tgttcgaag 269

<210> 2074
 <211> 197
 <212> nucleic acid
 <213> Glycine max

<400> 2074

aaaggttgct gtaggagata agatattgaa gtagtgctaa gtgcctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctcttctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaacact tcgccaacct tctgctgcat cagttgtgag atgcaacccc 180
 accaccccat caggcct 197

<210> 2075
 <211> 165
 <212> nucleic acid
 <213> Glycine max

<400> 2075

caaaggttgc tgtaggagat aagattgcag tagtgctaa tgctaaccacc tgcagtgaac 60
 aatggcctct gcatcagcat ctctgctcaa gtcttcactt gttcttgaca agtctgagtg 120
 ggtgaaggga caaaccttc gccaaccttc tgcacagtt gtgag 165

<210> 2076
 <211> 192
 <212> nucleic acid
 <213> Glycine max

<400> 2076

ctacaaaggc tgctgtagga gataagatat tgaagtagtg ctaagtgcct aacacctgca 60
 gtgaacaatg gcctctgcat cagcatctct tctcaagtct tcacttgttc ttgacaagtc 120
 tgagtgggtg aagggaacaa cacttcgcca accttctgct gcatcagttg tgagatgcaa 180
 cccaccacc cc 192

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<210>      2077
<211>      189
<212>      nucleic acid
<213>      Glycine max

<220>
<221>      unsure
<222>      (26),(73),(179)
<223>      unsure at all n locations

<400>      2077

caactacaaa gggtgctgta ggaganaaga tattgaagta gtgctaagt cctaacacct   60
gcagtgaaca atngcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa  120
gtctgagtgg gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagang  180
caacccccac                                     189

<210>      2078
<211>      197
<212>      nucleic acid
<213>      Glycine max

<400>      2078

gggtgctgta ggagataaga tattgaagta gtgctaagt cctaacacct gcagtgaaca   60
atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa gtctgagtgg  120
gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg caacccccacc  180
accccatcag gcctcac                                     197

<210>      2079
<211>      199
<212>      nucleic acid
<213>      Glycine max

<400>      2079

caactacaaa gggtgctgta ggagataaga tattgaagta gtgctaagt cctaacacct   60
gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttcacttg ttcttgacaa  120
gtctgagtgg gtgaagggac aaacacttcg ccaaccttct gctgcatcag ttgtgagatg  180
caacccccacc accccatca                                     199

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tacaactaca aaggttgctg taggagataa gatattgaag tagtgctaag tgnctaacac 60
 ctgcagtga caatggcctc tgcacagca tctcttctca agtcttctact tgttcttgac 120
 aagtctgagt ggggtgaagga caaacacttc gccaaccttc tgcctgcacg gttgtgagat 180
 gcaacccac caccatca ggctcacca tcagagctgg ttctatgct gatgagctcg 240
 ttaagaccgc gaaaacagtg gcttcaccag gg 272

<210> 2083
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2083

caactacaaa ggttgctgta ggagataaga tattgaagta gtgctaagt cctaacacct 60
 gcagtgaaca atggcctctg catcagcatc tcttctcaag tcttctcttg ttcttgacaa 120
 gtctgagtgg gtgaaggac aaacacttcg ccaaccttct gctgcacag ttgtgagatg 180
 caacccacc acccatcag gcctcagcat cagagctggg ttctatgctg atgagctcgt 240
 taagaccgcg aaaacagtgg cttcacca 268

<210> 2084
 <211> 153
 <212> nucleic acid
 <213> Glycine max

<400> 2084

acaaaggttg ctgtaggaga taagattgca gtagtgctaa gtgctaacac ctgcagtga 60
 caatggcctc tgcacagca tctctgctca agtcttctact tgttcttgac aagtctgagt 120
 ggggtgaaggg acaaaccctt cgccaacctt ctg 153

<210> 2085
 <211> 222
 <212> nucleic acid
 <213> Glycine max

<400> 2085

ctcgagccga atcggtctga gggggtctga gcaacgtaca aaggttacgc tttaggagat 60
 aagatattgt agtagtgcta agtgcttagc acttgacgtg aacaatggcc tctgcacag 120

catctcttct caagtcttca cttgttcttg acaagtctga gtgggtgaag ggacaaacac 180
ttcgccaacc ttctgctgca tcagttgtga gatgcaaccc ca 222

<210> 2086
<211> 188
<212> nucleic acid
<213> Glycine max

<400> 2086

atacaactac aaaggttgct gtaggagata agatattgaa gtagtactaa gtgcctaaca 60
cctgcagtga acaatggcct ctgcatcagc atctcttctc aagtcttcac ttgttcttga 120
caagtctgag tgggtgaagg gacaaacact tctccaacct tctgctgcat cagttgtgag 180
atgcaacc 188

<210> 2087
<211> 227
<212> nucleic acid
<213> Glycine max

<400> 2087

ctcgagccgc aaaggttgct gtaggagata agattgcagt agtgctaagt gctaacacct 60
gcagtgaaca atggcctccg gctcagcatc tctgctcaag tcttcacttg ttcttgacaa 120
gtctgagtgg gtgaagggac aaacccttcg ccaacccttct gcatcagctg tgagatgcaa 180
ccccaccacc ccatcaggcg tcaccatcag agctggttcc tatgctg 227

<210> 2088
<211> 106
<212> nucleic acid
<213> Glycine max

<400> 2088

tgaacaagtt ggaggtgttg aagccatgga ctctctcatt ctcatcggg cgagcactgc 60
aacaaagcac actcaagaca tgggggtggaa agaaggagaa tgctgc 106

<210> 2089
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (82), (257)
 <223> unsure at all n locations

<400> 2089

gacgacgcgt caatatggca tggccagata cgctgtcata tgccagaaaa agggctgggt 60
 ccattgttga gcttgagatc cntgttgatg gatctcatga cattcacaag tgtgctgccg 120
 tcaccgaacg tgtccctgca gcatgctaca aagctttgaa tgatcaccac gtccttcttg 180
 aggggtacct attgaagcca aacatgggtca ccccggggat caaatctgct aagggttccc 240
 ctcaggttgg tgcggancac aacggttaaa gcccttca 278

<210> 2090
 <211> 338
 <212> nucleic acid
 <213> Glycine max

<400> 2090

agtacggctg cgagaagacg acagaagggg gttcactttc ttccaacctc taacctacct 60
 ctttttcttc tctctcaaca acttcaactt cttcctctc gattaagtgc caatttaaag 120
 gcaaattaca agattaacct aaccgcaaaa ccgccttcaa ttggaatccc tgaaaagggt 180
 attcttcttg ccgataattc aacagggaca attggcaacc ttttgccag catcattgta 240
 aaaacaattg aatccaacag gcaagctctt agggagctgc ttttcattgc tctgatgtt 300
 cttcaatata tcattggtgt catctctttt aaggaaac 338

<210> 2091
 <211> 369
 <212> nucleic acid
 <213> Glycine max

<400> 2091

gatgagctta ttgcgaatgc tgcttacatt ggcactcctg gaaagggtat tcttgetgct 60
 gatgagtcaa cagggacaat tggcaagcgt ttggccagca tcagtgtaga gaatgttgaa 120
 tccaacaggc gtgctcttag ggagctgctt ttcaccgctc ccggtgctct taaatatctc 180
 agtgggtgtca tcctctttga ggaaactctc taccagagca cagctgcagg caagcccttt 240

gtggaagtct tgaaggaggc tgggtgtgctt cctggcatca aggttgacaa gggcacagtt 300
gagcttgctg gcactaatgg agaaaccacc actcagggtc tagatggcct tggtcagcgt 360
tgcgccaag 369

<210> 2092
<211> 432
<212> nucleic acid
<213> Glycine max

<400> 2092

agacggctgc gagaagacga cagaagggggg ttcactttct tccaacctct aacctacctc 60
tttttcttct ctctcaacaa cttcaccttc ttctctctcg atcatgtctc acttcaaggg 120
caagtaccat gatgagctta tgcgcaatgc tgcgtacatt ggcactcctg gaaagggat 180
tcttgctgct gatgagtcaa cagggacaat tggcaagcgt ttggccagca tcagtgtaga 240
gaacattgaa tccaacaggc gagctcttag ggagctgctt ttcactgctc ctggtgttct 300
tcaatatctc agtgggtgtca tcctctttga ggaaaccctc taccagagca cagctgcagg 360
caagcccttt gtgaatgtct tgaacgaagc tgggtgtgctt cctggcatca aggttgacaa 420
gggcacagtc ga 432

<210> 2093
<211> 379
<212> nucleic acid
<213> Glycine max

<400> 2093

ctacctcttt ctcttctatc tcaacaacta caccttcttg ctactggatc atgtctcgag 60
ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg cactcctgga 120
aagggatttc ttgctgctga tgagtcaaca gggacaattg gcaagcgctt ggccagcatc 180
agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt cactgctcct 240
gggtgttcttc aatatctcag tgggtgtcatc ctctttgagg aaaccctcta ccagagcaca 300
gctgcaggca agccctttgt gaatgtcttg aaagaagctg gtgtgcttcc tggcatcaag 360
ggtgacaagg gcacagtcg 379

<210> 2094

<211> 411
 <212> nucleic acid
 <213> Glycine max

<400> 2094

acctacctct ttttcttctc totcaacaac ttcaccttgg tctctctcga tcatgtctca 60
 cttcaagggc aagtaccatg atgagcttat cgccaatgct gcgtacattg gcaactcctgg 120
 aaaggggtatt cttgctgctg atgagtcaac agggacaatt ggcaagcgtt tggccagcat 180
 cagtgtagag aacattgaat ccaacaggcg agctcttagg gagctgcttt tcaactgctcc 240
 tgggtgttctt caatatctca gtgggtgtcat cctctttgaa gaaacctctt accagagcac 300
 agctgcaggc aagccctttg tgaatgtctt gaaagaagct ggtgtgcttc ctggcatcaa 360
 gggtgacaag ggcacagtgc agcttgctgg aactaatgga gaaaccacca c 411

<210> 2095
 <211> 446
 <212> nucleic acid
 <213> Glycine max

<400> 2095

aaaaacccta cttggctctt ttcttcactt gttcactttc ttccaacctc taacctacct 60
 ctttttcttc totctcaaca acttcacctt cttctctctc gatcatgtct cacttcaagg 120
 gcaagtacca tgatgagctt atcgccaatg ctgcgtacat tggcactcct ggaaagggta 180
 ttcttgctgc tgatgagtca acagggacaa ttggcaagcg tttggccagc atcagtgtag 240
 agaacattga atccaacaag ccaactctta aggagctgct tttcactgct cctgggtgttc 300
 ttcaatatct cagtgggtgc atcctctttg aggaaacct ctaccagagc acagctgcag 360
 gcaagccctt tgtgaatgtc ttgaaggaag ctgggtgtgct tcttggcatc aagggtgaca 420
 agggcacagt cgagcttgct ggaact 446

<210> 2096
 <211> 418
 <212> nucleic acid
 <213> Glycine max

<400> 2096

ctctaacctc cctctttttc ttctctctca acaacttcac cttcttctc ctcgatcatg 60
 agggcaagta ccatgatgag cttatcgcca atgctgcgta cattggcact 120

<210> 2099
 <211> 356
 <212> nucleic acid
 <213> Glycine max

<400> 2099

ctacctcttt ttctttctctc tcaacaactt caccctcttc ctctctgac atgtctcact 60
 tcaagggcaa gtaccatgat gagcttatcg ccaatgctgc gtacattggc actcctggaa 120
 aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 180
 gtgtagagaa cattgaatcc aacaggcgag ctcttaggga gctgcttttc actgctcctg 240
 gtgtttcttca atatctcagt ggtgtcatcc tctttgagga aaccctctac cagagcacag 300
 ctgcaggcaa gccctttgtg aatgtcttga aggaagctgg tgtgcttcct ggcac 356

<210> 2100
 <211> 369
 <212> nucleic acid
 <213> Glycine max

<400> 2100

ctcgagccga atcggtctga gaacctacct gtttttcttc tctctcaaca acttcacctt 60
 ctctctcttc gatcatgtct cacttcaagg gcaagtacca tgatgagctt atcgccaatg 120
 ctgcgtacat tggcactcct ggaaagggtg ttcttgctgc tgatgagtca acagggacaa 180
 ttggcaagcg tttggccagc atcagtgtag agaacattga atccaacagg cgagctctta 240
 aggagctgct tttcactgct cctggtgttc ttcaatatct cagtgggtgc atcctctttg 300
 aggaaacct ctaccagagc acagctgcag gcaagccctt tgtgaatgtc ttgaaggaag 360
 ctggtgtgc 369

<210> 2101
 <211> 390
 <212> nucleic acid
 <213> Glycine max

<400> 2101

acggctgcga gaagacgaca gaaggggact tgttcacttt cttccaacct ctcaagtcca 60
 acctaccct ttttctcttc ccaccaactt caccgtcttc ttctctgac atgtctcact 120

tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc actcctggaa 180
 aggggtattct tgctgctgat gagtcaacag ggacaattgg caagcgtttg gccagcatca 240
 gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc accgctcccg 300
 gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac cagagcacag 360
 ctgcaggcaa gccctttgtg gaagtcttga 390

<210> 2102
 <211> 427
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (191), (337)
 <223> unsure at all n locations
 <400> 2102

cacgcgtcca gctattcctc cctcctcaca aacttcaett tcttcttctt cattaatgtc 60
 tcacttcaag ggcaagtacc atgatgagct tatcgcaa at gctgcgtaca ttggcactcc 120
 tggaaaggggt attcttgctg ctgatgagtc aacagggaca attggcaagc gtttggccag 180
 catcagtgtg nagaacattg aatccaacat gcgagctctt agggagctgc ttttactgc 240
 tcttggtgtt cttcaatata tcagtgggtg catcctcttt gaggaaaccc tctaccagag 300
 cacagctgca tgcaagccct ttgtgaatgt cttgaangaa gctgggtgtgc ttcctggcat 360
 caatgttgac aagggcacag tcgagcttgc tggaactaat ggagaaaaca ccactcatgg 420
 tctagat 427

<210> 2103
 <211> 392
 <212> nucleic acid
 <213> Glycine max
 <400> 2103

caacctetaa cctacctctt tttcttctct ctcaacaact tcaccttctt cctcctcgat 60
 catgtctcac ttcaagggca agtaccatga tgagcttata gccaatgctg cgtacattgg 120
 cactcctgga aagggtatcc ttgctgctga tgagtcaaca gggacaattg gcaagcgttt 180

ggccagcatc agtgtagaga acattgaatc caacaggcga gctcttaggg agctgctttt 240
 cactgctcct ggtgttcttc aatatctcag tgggtgcatc ctctttgagg aaacctctta 300
 ccagagcaca gctgcaagga aacctcttgg tgaaggctct gaaggaagct ggtgtgcttc 360
 ctgccatcaa gggtgacaag ggcacagtcg ag 392

<210> 2104
 <211> 370
 <212> nucleic acid
 <213> Glycine max

<400> 2104

cccacgcgtg cgcccacgcg tacgcctacc tatttttctt ctctctcaac agcttcaggt 60
 tcttctcctt cgatcatgtc tcacttcaag ggcaagtacc atgatgagct tatcgccaat 120
 gctgcgtaca ttggcactcc tggaaaaggt attctcgctg ctgatgagtc aacagggaca 180
 attggcaagc gtttggccag catcagtgtc cagaacattg aatccaacag gcgagctctt 240
 agggagctgc ttttcaactgc tcctgggtgtt cttgaatatc tcagtgggtg catcctgttt 300
 gaggaaacct tttaccagag cacagctgca ggcaagccct ttgtgaatgt cttgaaagaa 360
 gctgggtgtgc 370

<210> 2105
 <211> 405
 <212> nucleic acid
 <213> Glycine max

<400> 2105

ctcaagtcca acctacctt ttttcttctc ccaccaactt caccgtcttc ttctcgtac 60
 atgtctcact tcaagggcaa gtaccatgat gagcttattg ccaatgctgc ttacattggc 120
 actcctggaa agggattctt tgcctgctgat gagtcaacag ggacaattgg caagcgtttg 180
 gccagcatca gtgtagagaa tgttgaatcc aacaggcgtg ctcttaggga gctgcttttc 240
 accgtcccg gtgctcttaa atatctcagt ggtgtcatcc tctttgagga aactctctac 300
 caaagcacag ctgcaggcaa ccccttgtgg aagtcttgaa ggaggctggt gtgcttcctg 360
 gcatccaagt tgacaagggc acagtttgag cttgctggca ctaat 405

<210> 2106

<211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2106

ctcaagtcca acctaccct ttttcttctc ccacgcaact tgaccgtctt cttcctcgat 60
 catgtctcac ttcaagggca agtaccatga tgagcttatt gccaatgctg cttacattgg 120
 cactcctgga aaggggtattc ttgctgctga tgagtcaaca gggacaattg gcaagcggtt 180
 ggccagcatc agtgtagaga atgttgaatc caacaggcgt gctcttatgg agctgctttt 240
 caccgctccc ggtgctctta aatatctcag tgggtgt 276

<210> 2107
 <211> 401
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (241)
 <223>

<400> 2107

aagtgtgtct gagcctgacg tcgtagctat tgcactcactc tataagagct atgacgcacg 60
 ctgacctaaag cccgggattc gggttcggga tgggccccaa cgagccttct gagctgtcta 120
 tccatgagaa cgcctatggc ttggctagat acgctgtcat atgccatgag aatggcctgg 180
 ttcccattgt tgagcctgag atccttggtg atggacctca tgacattcac aagtgtgccg 240
 ncgtcaccga gcgtgtcctt gcagcatgct acaaggcttt gaatgatcac catgtccttc 300
 ttgaggggtac cctattgaag ccaaacatgg tcacccttgg atcccaatct gctaagggtt 360
 tccctcatgt ggttgccgag cacactgtca gagcccttca g 401

<210> 2108
 <211> 309
 <212> nucleic acid
 <213> Glycine max

<400> 2108

gacccacgag tccgcgcact cgtccgtacg gctgcgagaa gacgacagaa gggtagcgct 60
 gcgagaagag gacagaatgg tacggctgcg agaagacgac agaaggatac ggctgcgaga 120

<400> 2111
 tacggctgog agaagacgac agaaggggac actccctttt taaaaccggt gtctttctcac 60
 ttcgtcaaaa ccaacgaggg gcgtcccca gtctcaagcc aaccatgtct tccttcaaga 120
 gcaagtacca ggatgaactc attgccaatg ctgcttacat tggcacccca gggaagggtta 180
 tccttgogggc tgatgagtca actggtacaa gtcgcaagcg attggccagc attaatgtcg 240
 agaatgttga agcaactagg cgtgctcttc gtgaactcgg attcagcaca cctggtgctt 300
 ttgagtgcct cagtgggtgtg atcttgtctg acgaaaccct atgccaggag acagcttcag 360
 gaaaaccctt cgt 373

<210> 2112
 <211> 370
 <212> nucleic acid
 <213> Glycine max

<400> 2112
 tacaaagggt gctgtaggag ataagattgc agtagtgcta agtgctaaca cctgcagtga 60
 acaatggcct ctgcatcagc atctctgctc aagtcttcac ttgttcttga caagtctgag 120
 tgggtgaagg gacaaaccct tcgccaacct tctgcatcag ttgtgagatg caaccccacc 180
 agcccatcag gcctcaccat cagagctggg tcctatgctg atgagctcgt taagaccgcg 240
 aaaacagtgg cttcaccagg gaggggtatt ttggccatgg atgagtccaa tgctacctgt 300
 gggaagcggt tggcttcaat tgggctagag aacactgaag ctaaacgcca ggcataccgt 360
 tacctcctcg 370

<210> 2113
 <211> 418
 <212> nucleic acid
 <213> Glycine max

<400> 2113
 agataagatt gcagtactgc taagtgctaa cacctgcaat gaacaatggc ctctgcatca 60
 gcatctctgc tcaagtcgtc acttgttctt gacaagtctg agtgggtgaa gggacaaacc 120
 cttcgccaac cttctgcacg agttgtgaga tgcaacccca ccaccccatc aggctcagc 180
 atcagagctg gttcctatgc tgatgagctc gttaagaccg cgaaaacagt ggcttcacca 240

gggaggggta ttttggccat ggatgactcc aatgctacct gtgggaagcg tttggcttca 300
attgggctat agaacactga agctaaccgc catgcatagc gtaccctcct cgtgacagtt 360
ccaggccttg gtcagtacat ctctggtgcc attctctttg aggaaacact ctaacaat 418

<210> 2114
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 2114

ctcgagccac tcgagccgct aaaaactggg atgaccctac taccaagtat gtggagaaat 60
gcaagtatac caagagatgg ttcataacca aagtccttaa gatataattg aagcatggta 120
gctgatgttc accgcacatt gctttatgga ggtatttttc tgtatccggc tgataaaaag 180
agtccaaatg gaaaacttcg tgtactctat gaagtcttcc caatgtcatt cttgatggaa 240
caagcaggag gacaggcttt cactggc 267

<210> 2115
<211> 271
<212> nucleic acid
<213> Glycine max

<400> 2115

agaagagaag tggatatgag cttcaaacac tactaactg gatgctgaag caggagcaag 60
ctggggtgat tgatgcagaa ctactattg tgctgtctag catttccatg gcgtgcaatc 120
agattgcttc tttggtgcaa agagccaaca tttccaacct cactgggggtt caaggagctg 180
tcaatgttca gggggaagac cagaaaaagc ttgatgttgt ttcaaatgag gtcttctcat 240
actgcttgag gtcaagtggg aggacagga t 271

<210> 2116
<211> 261
<212> nucleic acid
<213> Glycine max

<400> 2116

gaaatgcaa aaactgggat cgtcctactg ctacttacgt tgaaaaatgc aagtttcttg 60
aagatgggtc atcaccaaag tctctaagat atattcggaa gtatgggtag ctgatgttca 120

atggaacagg caggaggaca gtctttcacg ggcaagg

157

<210> 2122
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2122

tcacagtgcc gatgctcaac gcacggactt gatgaccatc acccgcttcg tgetgaacca 60
acaatccaac caccctgagt ctcggtggcga tttctcaatc ttgctcagtc acattgttct 120
cggttgcaag ttcctctgct ctgctgttaa caaggcgggt cttgctaagc ttattggact 180
tgcaggagag acaaatgttc agggcgaaga gcaaaagaaa ctggatgtcc tttccaatga 240
tgtctttatc aaggcttttg tc 262

<210> 2123
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2123

ggatcacagt gccgatgtc aacgcacgga cttgatgacc atcacccgct tcgtgctgaa 60
ccaacaatcc aaccaccctg agtctcgtgg cgattttctca atcttgetca gtcacattgt 120
tctcggttgc aagttcctct gctctgctgt taacaaggcg ggtcttgcta agcttattgg 180
acttgcagga gagacaaatg ttcaggggaa gagcaaaaga aactggatgt cctttccaat 240
g 241

<210> 2124
<211> 261
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (61), (68), (90), (248)
<223> unsure at all n locations

<400> 2124

acatacacc acatatttca tatgggtact tgttaatttg ggtgtggatt gttggtttgt 60
nacttgnnt gttccgttca ggtgattgtn tgattgagcc ttgaagaaat ggaccacagc 120

gctgatgcac atcgcacgga cttgatgacc ataacgcggt tcgtgctgaa cgagcaatcc 180

aagcaccocg agtcacgcgg cgatttcacc atcttgetca gtcacattgt tctcggttgc 240
aagttcgntt gttccgctgt c 261

<210> 2125
<211> 258
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (84)
<223>

<400> 2125

ttattatact ttcttcttct tctttattat tgttgattaa tataacatac acccacatat 60

ttcatatggg tacttggttaa tttnggtgtg gattgttagt ttgttacttg tttgttccgt 120

tcaggtgatt gtttgattga gccttgaaga aatggaccac agcgtgatg cacatcgcac 180

ggacttgatg accataacgc ggttcgtgct gaacgagcaa tccaagcacc ccgagtcacg 240

cggcgatttc accatctt 258

<210> 2126
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2126

tccaacctca ctgggggttca aggagctgtc aatgttcagg gggaagacca gaaaaagctt 60

gatgttgttt caaatgaggt tttctcaaac tgcttgaggt caagtgggag gacagggata 120

atagcatcag aggaggaaga tgtgccagtg gcagtagaag agagttattc tggaaactac 180

attgtggtgt ttgacctact tgatgggtca tccaatattg atgctgcagt gtcaactggg 240

tccatttttg ggatata 257

<210> 2127
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2127

CCGAGTCACG

tcagggggaa gaccagaaaa agcttgatgt tgtttcaa at gaggttttct caaactgctt 60
gaggtcaagt gggaggacag ggataatagc atcagaggag gaagatgtgc cagtggcagt 120
agaagagagt tattctggaa actacattgt ggtgtttgac ccacttgatg ggtcatccaa 180
tattgatgct gcagtgtcaa ctgggtccat ttttgggata tacagcccca atgatgagt 240
tctgctgaca ttg 253

<210> 2128
<211> 228
<212> nucleic acid
<213> Glycine max

<400> 2128

tatcagaaaa agcttgatgt tgtttcaa at gaggttttct caaactgctt gaggtcaagt 60
gggaggacag ggataatagc atcagaggag gaagatgtgc cagtggcagt agaagagagt 120
tattctggaa actacattgt ggtgtttgac ccacttgatg ggtcatccca tattgatgct 180
gcaatgtcaa tgggtccat ttttgggata tacagcccca tgatgagt 228

<210> 2129
<211> 284
<212> nucleic acid
<213> Glycine max

<400> 2129

atcaacaaac caaaaaggta aactttttgc aacaaccatg gttgcaatgg cagcagcaac 60
agcatccacc cagttgattt tctcaaagcc ttgttcccct tcacgtctat gcccttcca 120
actatgtgtc ttgacacta aacaagtgt atcaagtggc aggagaaggc atgtgggggg 180
ttctggagtt aggtgcatgg ctgtggggga agcagcaacc actgggacaa agaagagaag 240
tgatgatgag cttcaaacac tcaactagctg gttgctgaag cagg 284

<210> 2130
<211> 276
<212> nucleic acid
<213> Glycine max

<400> 2130

caaaaaggta aactttttgc aacaaccatg gttgcaatgg cagcagcaac agcatccacc 60

663120 "E3T6660

<223>

<400> 2133

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actttttgca acaaccatgg ttgcaatggg cagcagcaac agcatccacc cagttgattt 60
tctcaaagcc ttgttcccc ttcaogteta tgcccccttc aactatgtgt ctttnacact 120

aaacaagtgc tatcaagtgg caggagaagg catgtggggg gttctggagt taggtgcatg 180

gctgtggggg aagcagcaac catgggacaa agaagagaag tggatatgag cttcaaacac 240

tcactagctg gttgctgaag caggagcaag ctgg 274
```

<210> 2134

<211> 252

<212> nucleic acid

<213> Glycine max

<400> 2134

```
aaaaggtaaa ctttttgcaa caaccatggt tgcaatggca gcagcaacag catccaccca 60

gttgattttt tcaaagcett gttccccctt acgtctatgc cccttcgaac tatgtgtctt 120

tgacactaaa caagtgctat caagtggcag gagaaggcat gtgggggggt ctggagttag 180

gtgcatggct gtgggggaag cagcaaccac tgggacaaag aagagaagtg gatatgagct 240

tcaaacactc ac 252
```

<210> 2135

<211> 275

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (142), (212), (214), (256), (274)

<223> unsure at all n locations

<400> 2135

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ttttgcaaca accatgggtt caatgggcag cagcaacagc atccaccag ttgattttct 60

caaagccttg ttcccccttca cgtctatgcc ccttccaact atgtgtcttt gacactaaac 120

aagtgctatc aagtggcagg anaaggcatg tgggggggtt tggagttagg tgcattgctg 180

tgggggaagc agcaaccact gggacaaaga ananaagtgg atatgagctt caaacactca 240

ctagtgggtt ctgaanagga gcaagctggg gtgnt 275
```

<210> 2136
 <211> 253
 <212> nucleic acid
 <213> Glycine max

 <400> 2136

 caaaaaggta aactttttgc aacaaccatg gttgcaatgg cagcagcaac agcatccacc 60
 cagttgattt tctcaaagac cttgttcccc ttcacgtcta tgccccttcc aactatgtgt 120
 ctttgacact aaacaagtgc tatcaagtgg caggagaagg catgtggggg gttctggagt 180
 taggtgcatg gctgtggggg aagcagcaac cactgggaca aagaagagaa gtggatatga 240
 gcttcaaaca ctc 253

<210> 2137
 <211> 254
 <212> nucleic acid
 <213> Glycine max

 <400> 2137

 aaaaggtaaa ctttttgcaa caaccatggt tgcaatggca gcagcaacag catccaccca 60
 gttgattttc tcaaagcctt gttccccctc acgtctatgc cccttccatc tatgtgtctt 120
 tgacactaaa caagtgctat caagtggcag gagaaggcat gtgggggggtt ctggagttag 180
 gtgcatggct gtgggggaag cagcaaccac tgggacaaaa agagaagtgg atatgagctt 240
 caaacactca ctag 254

<210> 2138
 <211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 2138

 ttctcaaagc cttgttcccc ttcacgtcta tgccccttcc aactatgtgt ctttgacact 60
 aaacaagtgc tatcaagtgg caggagaagg catgtggggg gttctggagt taggtgcatg 120
 gctgtggggg aagcagcaac cactgggaca aagaagagaa gtggatatga acttcaaaca 180
 ctcactagct gggttgctaga acaggagcaa gctgggggtga ttgatgcaga actcatattg 240
 tgctgtctag catttccatg gc 262

<210> 2139
 <211> 285
 <212> nucleic acid
 <213> Glycine max

<400> 2139

caaaaaggta aacttttgca acaaccatgg ttgcaatggc agcagcaaca gcatcctccc 60
 agttgatttt ctcaaagcct cgtcacccct cgcgtctctg tcccttccaa ctaacgggtct 120
 ttgacaccaa acaagtgtctg tcaagttcaa gtggcaggag aaggcatgtg ggggggttctg 180
 gagttagggtg catggcggtg ggagaagctg caaccactga gactaagaag agaagtggat 240
 atgagcttca aacactcact aactgggttc tgaagcagga gcaag 285

<210> 2140
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2140

atggttgcaa tggcagcagc aacagcatcc acccagttga ttttctcaaa gccttggtcc 60
 ccttcacgtc tatgccccct ccaactatgt gtctttgaca ctaaacaagt gctatcaagt 120
 ggcaggagaa ggcattgtggg gggttctgga gttagggtgca tggctgtggg ggaagcagca 180
 accactggga caaagaagag aagtggatat gagcgtgatc actcactagc tggttgctga 240
 agcaggagca a 251

<210> 2141
 <211> 275
 <212> nucleic acid
 <213> Glycine max

<400> 2141

caaaaaggta aactttctgca acaaccatgg ttgcaatggc agcagcaaca gcatcctccc 60
 agttgatttt ctcaaagcct cgttcaccct cgcgtctctg ccccttccac actatgtgtc 120
 tttgacacca aacaagtgtc gtcaagttca agtggcagga gaaggcatgt ggggggttct 180
 ggagttagggt gcatggcggt gggagaagct gcaaccactg agactaagaa gagaagtgga 240
 tatgagcttc aacactcact aactgggttc tgaag 275

<210>	2142
<211>	248
<212>	nucleic acid
<213>	Glycine max

00370.01220

tttgacacca aacaagtgt gtcaagttca agtggcagga gaaggcatgt ggggggttct 180
ggagttaggt gcatggcggt gggagaagct gcaaccactg agactaagaa gagaagtgga 240
tatgagcttc aaacactcac taactggttg ctgaagcagg agc 283

<210> 2145
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 2145

aaacttctgc aacaaccatg gttgcaatgg cagcagcaac agcatcctcc cagttgattt 60
tctcaaagcc tcgttcaccc tcgctgtctt gacccttcca actatgtgtc tttgacacca 120
aacaagtgt gtcaagttca agtggcagga gaaggcatgt ggggggttct ggagttaggt 180
gcatggcggt gggagaagct gcaaccactg agactaagag agaagtggat atgagcttca 240
aacact 246

<210> 2146
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2146

caaaaaggta aacttctgca acaaccatgg ttgcaatggc agcagcaaca gcatcctccc 60
agttgatttt ctcaaagcct cgttcaccct cgcgtctctg ccccttccaa ctatgtgtct 120
ttgacaccaa acaagtgtgt tcaagttcaa gtggcaggag aaggcatgtg ggggggttctg 180
gagttaggtg catggcggtg ggagaagctg caaccactga gactaagaag agaagtggat 240
atgagcttca aacactc 257

<210> 2147
<211> 278
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (102), (115), (175), (185), (224), (226)
<223> unsure at all n locations

<220>
 <221> unsure
 <222> (17), (33), (53), (65), (89), (118), (126), (261)
 <223> unsure at all n locations

 <400> 2150

 caaaaaggta aacttcngca acaaccatgg ttnccaatgg cagcagcaac agnatectcc 60
 cagtngattt totcaaagcc tcgttgcan ctcgcgtctc tgcccccttc aactatgngt 120
 ctttgnccac aaacaagtgc tgtcaagttc aagtggcagg agaaggcatg tgggggggttc 180
 tggagttagg tgcattggcg tgggagaagc tgcaaccact gagactaaga agagaagtgg 240
 atatgagctt caaacactca ntaactggt 269

<210> 2151
 <211> 222
 <212> nucleic acid
 <213> Glycine max

 <400> 2151

 aaaatcaaca aacaaaaag gtaaactttt tgcaacaacc atggttgcaa tggcagcagc 60
 aacagcatcc acccagttga tttttctaaa gccttggtcc ccttcacgtc tatgccccctt 120
 ccaactatgt gtctttgaca ctaaacaagc gctatcaagt ggcaggagaa ggcattgtggg 180
 gggttctgga gttaggtgca tggctgtggg ggaagcagca ac 222

<210> 2152
 <211> 192
 <212> nucleic acid
 <213> Glycine max

 <400> 2152

 gtaaactttt tgcaacaacc atggttgcaa tggcagcagc aacagcatcc acccagttga 60
 tttttctaaa gccttggtcc ccttcacgtc tatgccccat ccaactatgt gtctttgaca 120
 ctaaacaagt gctatcaagt ggcaggagaa ggcattgtggg gggttctgga gttaggtgca 180
 tggctgtggg gg 192

<210> 2153
 <211> 247
 <212> nucleic acid
 <213> Glycine max

tatgtatgga agctcttgca cgcttggtt aagcactgga gcaggtgtta atgggt 236

<210> 2160
 <211> 280
 <212> nucleic acid
 <213> Glycine max

<400> 2160

gcaacagcca ctaagatggt ctttgagtct tggcacgcca cgtgtcagaa ctgccaacag 60

atagcaccat ctctttctcc ttctccctaa acctcgaaact cagcaccccc atccactggt 120

gattgtttga ttgagccttg aagaaatgga ccacagcgct gatgcacatc gcacggactt 180

gatgaccata acgcggttcg tgctgaacga gcaatccaag cccccgagt cacgcggcga 240

tttcaccatc ttgctcagtc acattgttct cggttgcaag 280

<210> 2161
 <211> 363
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (236), (284), (304), (307), (311), (341) ... (342)
 <223> unsure at all n locations

<400> 2161

caaaactttc atatccccga aattctctct ttttccactg ttccctagga aatatttatt 60

ctcatcttca tctctacac aacacctaag atcggacaag agggaaactca taatttataa 120

aaagaacatt gagaaagaga gaagggaaga agaatggacc accaagctga cactaacaga 180

actgatttga tgacatcaca cgctttgttc tgaatgaaca gtcaaagtat cccgantcac 240

gtggcgattt caccatcctt ctcaagtcaca tgggttctggg ctgnaatccg tttgttctgc 300

tgtnaanagg ngggttggcg aaaccaagg attgcggaga nncattttca ggggggacaa 360

aaa 363

<210> 2162
 <211> 393
 <212> nucleic acid
 <213> Glycine max

<400> 2162

cttgagcatt atgttgtccc aactcccgca actgctgcaa attcagcaca tgtatatgcc 60
gctaacatga cagagaatcc aaggctcacta atttgtgggt ctggcagcag ttcatatccc 120
atcaaggaga tgcaggttat tgtgcctgat ccatctaaga tttttcaaag ttctggaatg 180
gttgaatcca agtcagttgg aacattttca cctctgcaaa agcaagagag tcagagggga 240
ctttttgttg atagaggtgt 260

<210> 2166
<211> 390
<212> nucleic acid
<213> Glycine max

<400> 2166

cccacgcgtc cgtacggctg cgagaagacg acagaagggg ggatgacgta tgaagaaatc 60
aagaagaaca tgccagagga gtatgaatcc cgcaataagg acaaacttag gtatcgttat 120
cctcgtggag agtcttactt agatgttatt caaagggttag aacctgtaat tattgaaactt 180
gagcgcacaac gagcacctgt tgttgtgata tctcaccagg cagttttgag ggcattatat 240
gcttattttta ctgacaggcc tttgaaagaa attgcagata ttgagatgcc cctccatacg 300
ataatagaaa tacaattggg agttacaggt gtcgaagaga aaagatacaa actaatggac 360
tgaaatgaat aactgaagga gagaagaaac 390

<210> 2167
<211> 122
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (62)...(64),(84),(90)
<223> unsure at all n locations

<400> 2167

ggtgagtaac catgatgagc taatgtccaa ctattttgca cagtctgatg cccttgcata 60
tnnnaagaca gcagagcagc tgcnaaaggn caatgtttcc ccgcacctta ttccacacaa 120
ga 122

<210> 2168

<211> 234
 <212> nucleic acid
 <213> Glycine max

 <400> 2168

 tgataatcct ccactcaaga taacatacat ggacaacacg gatcctgctg gaattgatca 60
 tcagattgca caacttgggc ctgagctagc ttcaacactt gtgattgtga tatcaaagag 120
 tggaggtact cctgagacca gaaatggttt attggaagtg cagaaggcct ttcgtgaagc 180
 aggcttggat tttcctaaac aggggtgttc tataacacaa gaaaattctt tgtt 234

<210> 2169
 <211> 205
 <212> nucleic acid
 <213> Glycine max

 <400> 2169

 ttcctatgtt tgattgggca ggaggtagaa cgtcagagat gtctgcagtt ggcttgettc 60
 cagcagccct tcagggtatt gatattagag aaatgcttgc cggatgcatca ttgatggatg 120
 aggctaatag gagtactgtg ttaaggaata accctgcagc tctgctggct ttatgttgggt 180
 attgggctac agatggtgta ggatc 205

<210> 2170
 <211> 223
 <212> nucleic acid
 <213> Glycine max

 <400> 2170

 tgcagggcgt tgctataact caagaaaatt ctttgcctgga taacactgca agaattgagg 60
 gttgggttagc tagatttcca atgtttgact ggggtgggagg tagaacatca gagatgtctg 120
 cagtgggcct gcttccagca gcccttcaga gcattgacat aagagaaatg cttgctgggtg 180
 cagcattaat ggatgaggcg aataggagta ctgtgataag gaa 223

<210> 2171
 <211> 218
 <212> nucleic acid
 <213> Glycine max

 <400> 2171

tgcagggcgt tgctataact caagaaaatt ctttgctgga taagactgca agaattgacg 60
 gttgggttagc tagatttcca atgtttgact ggggtgggagg tagaacatca gagatgtctg 120
 cagtgggcct gcttccagca gcccttcaga gcattgacat aagagaaatg cttgctgggtg 180
 cagcattaat ggatgaggcg aataggagta ctgtgata 218

<210> 2172
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2172

gtgctacgtg atagacctcc tggatcatgat tgggaacttg aacctgggtg cacatgcggt 60
 gactacttgt ttggtatgct acaggggaaca agatcagctc tgtatgcca taaccgagag 120
 tccatcacag ttactgtaca agaagtgaca cctagaacag ttggtgctct tattgcactc 180
 tatgaacgag cagtaggaat ttatgcctcc cttgtcaaca taaatgctta tcatcaacca 240
 ggtgtggaag ctggtaaaaa agcagcaggt gaa 273

<210> 2173
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2173

aacaattgag ggaaggtgta cacaatttct ttgtaacatt cattgaggtg ctacgtgata 60
 gacctcctgg tcatgattgc gaacttgaac ctggtgtcac atgcggtgac tacttgtttg 120
 gtatgtctaca ggaacaaga tcagctctgt atgccaataa ccgagagtcc atcacagtta 180
 ctgtacaaga agtgacacct agaactgttg gtgctcttat tgcactctat gaacgagcag 240
 taggaattta tgctcc 257

<210> 2174
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2174

tacggctgcg agaagacgac agaaggggat tgggaacttg aacctgggtg cacatgtggt 60

gactacttgt ttggtatgct acaggggaaca aggtcggctt tgtatgccaa taaccgagag 120
 tccatcacag ttactgtaca agaagggaca ccaagaacag ttggtgctct tattgggctc 180
 tatgaacgag cagtaggaat ttatgcctcc cttgtcaaca taaatgctta tccttttctc 240
 cgtgtgga 248

<210> 2175
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2175

atcctgcagc tttgctggct ttatgttggc attgggctac agatgggtga ggatcaaaag 60
 atatgggttat ccttccatat aaggacagct ttctattatt tagtagatac ttgcaacagt 120
 tggatcatgga atctctagga aaggagtttg acttgaatgg taatcgggtt aatcaaggaa 180
 ttagtgtcta tggaaataaa ggaagcacag atcagcatgc ctacattcac caactg 236

<210> 2176
 <211> 270
 <212> nucleic acid
 <213> Glycine max

<400> 2176

cagcatgcct acattcagca actgagggaa ggtgtgcaca atttttttgt gacattcatt 60
 gaggtgctac gcgatagacc acctgggtcat gattggggagc ttgaaccagg tgtcacatgt 120
 ggtgactacc tgtttggtat gctacagggga acaagggtcag ccctgtatgc caataaccgt 180
 gaatccatca ctgtcacagt gcaagaagtg acaccagat cagttgggtgc cctttagacc 240
 ctttatgaac gggccggttg aatatatgct 270

<210> 2177
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2177

ggagtttgac ttgaatggta atcgggttaa tcaaggaatt agtgtctatg gaaataaagg 60
 aagcacagat cagcatgcct acattcaaca actgagggaa ggtgtgcaca atttttttgt 120

cacggatcct gctggaattg atcatcagat tgcacaactt gggcctgagc tagcttcaac 360
ac 362

<210> 2183
<211> 243
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (197), (211), (216) ... (217), (222), (224), (226) ... (227),
(229) ... (230), (232), (234)
<223> unsure at all n locations

<400> 2183

ctgagttccg ccattacact gacatcaatg agcttccctcc acatcggtt gctgaaatca 60
gaagattctt tgaggactac aagaagaatg agaacaaaat agttgatgtt gaagactttc 120
taccggctga agctgccatt gatgccatca attactccat ggacttgtat gctgcttaca 180
tagttgagag ctaaggnact aactttcteta nagacnntgt ancncnntnn gngngetctc 240
caa 243

<210> 2184
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2184

ctcctcttaa tgagaggatt atttcatcca tgaccagaag atctgttget gcacacccgt 60
ggcacgacct tgagataggg cctggtgctc caacgatctt caattgtgtg attgagattg 120
ggaaagggag caaggtgaaa tatgaactgg acaaaaaatc gggctttatc aagatcgacc 180
gtgtccatta ctcatcagtt gtgtatcctc acaattatgg gtttatccca cgtactatct 240
gtgaggacag tgatccctg ga 262

<210> 2185
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2185

ggagccagtt cttccagggt gctttctacg ggccaaagct attggactca tgcctatgat 60
 tgatcagggg gagaaagatg acaagataat tgctgtctgt gctgatgatc ctgagtatag 120
 gcattacaat gatatcaagg accttctctc tcaccgttta gctgaaattc gtcgtttctt 180
 tgaagattac aagaagaatg agaacaagga agttgcagtg aacgactttc ttcttgcttc 240
 agctgcctat gaag 254

<210> 2186
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2186

gcattattgt ctgtttgatt actactctct ttgcaactga tttctttgag atcaaggctg 60
 tcaaggaaat tgaaccagct ttgaaaaagc agcttatcat ctctacagta ctcatgactg 120
 ttggaattgc aattattagt tggattgctc tgccaacatc cttcacaatt ttcaactttg 180
 gcgctcagaa ggaagtaaag agctggcagc tgttctctct tgtgggtggt ggtctatggg 240
 ctggac 246

<210> 2187
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2187

caacactggc ggtgcttggg ataatgctaa gaagtacata gaggctggtg cgtctgagca 60
 tgcaaggacc ctgggccagc aaggatctga accacataag gcagctgtta ttggagatac 120
 cattggagac cctcttaaag atacttcagg tccttcactc aacatcctca tcaagctcat 180
 ggccgttgag tcgctcgtct tcgcaccatt ttctgccact caggtggcc tgcttttcaa 240
 gatcttttga tttgagggt 259

<210> 2188
 <211> 188
 <212> nucleic acid
 <213> Glycine max

<400> 2188

gcctctgttc cgccaagcgc agataagacc caccgttcag gccaccggct gagttaggtt 60
 tccggcgagg atcgggtgctg ctctgctgtc ggagcttgcg acggagatag tctgtccagt 120
 gtgcgccgtc atcgggatcg ggtcctggct ggtgcagtgg ttctctgtgt cgcgcgtcaa 180
 gctcaactc 188

<210> 2189
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 2189

ctgctggcaa cactactgct gccataggca agggatttgc tattgggtct gccgctctgg 60
 tgtctttggc cctatttggg gcatttgtga gcagggttg aatttcaact gttgatgtct 120
 tgacacccaa ggtctttatt ggactcatag ttggtgccat gcttcccttac tggttttccg 180
 ctatgaccat gaagagtgtt ggaagtgcag ctttgaagat ggttgaggag gttcgtaggc 240
 ag 242

<210> 2190
 <211> 313
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (9), (29), (31), (34), (49), (53), (64), (75), (78), (87), (91),
 (107), (110), (115), (125), (131), (140)... (141),
 (143)... (144), (156)... (157), (163), (180), (186), (203),
 (224), (239), (261)... (262), (264), (268), (281), (285),
 (287)... (288), (296)
 <223> unsure at all n locations

<400> 2190

gctctgtgng aaggettcag tactaaganc nagncttgc catatgatna gangcgagct 60
 atanaagcca gcccntgneg acttgcnttg nttagccctg tcatctntcn tggcntgggtg 120
 ctatnacttc ngctctatcn ngnttcctta ggctannaat tgnccagcctg tgccaatgcn 180
 aggacnaacc ttagcagcca ganagggagt tggataggct ttgnatactg catttaggnc 240
 tgggtcagtg atgggtttcc nncntggngg aaatgggtctt ntggngnnct acattnacca 300
 tcaatctctt cag 313


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<210>      2191
<211>      119
<212>      nucleic acid
<213>      Glycine max

<220>
<221>      unsure
<222>      (9), (31), (41), (44), (59), (68) ... (69), (75), (77), (81), (87),
            (90), (112), (118)
<223>      unsure at all n locations

<400>      2191

cccatggcnt gaccttgaga tcggacctgg ngctccaatt ntcntcaatt gtgtgattna    60
aattgggnna gggancnagg ngaaatntgn actggacaca aagtcggggc tnatcaang    119

<210>      2192
<211>      258
<212>      nucleic acid
<213>      Glycine max

<400>      2192

agatgacaag ataattgctg tctgtgctga tgatcctgag tataggcatt acaatgatat    60
caaggagctt cctccacacc gtttagctga aattcgctgt ttctttgaag attacaagaa    120
gaatgagaac aaggaagttg cagtgaacga ctttcttcct gcctcagctg cctatgaagc    180
gatcaagcat tccatgacct tatatgcgga atacgtttgtg gagaacttga ggcggtagt    240
ttgattcctg ggtgcttg                                     258

<210>      2193
<211>      263
<212>      nucleic acid
<213>      Glycine max

<400>      2193

gcgcaacca gctgttattg cagacaacgt aggagctaatt gttggagata tcgctgggat    60
gggttcagac ttatttgggt cttatgcaga atcatcatgt gcagctttat ttgtagcatc    120
catatcatcg tttggaacaa atcatgatca cacagccatg tcatatcctc tcatcataag    180
ctccatggga attgtgggtt gcttgattac gactcttttt gcaactgatc tgtttgaact    240
taaaaacgtg agccaaatag aac                                     263

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<210> 2194
 <211> 168
 <212> nucleic acid
 <213> Glycine max

<400> 2194

eggctcgagg ggagaggaag caaggtgaga tatttacttg acaaaagaac tggaaatatt 60
 atggttgatc gtatactaca ctcatcagta gtttatcctc acaactatgg gaatattcca 120
 cgtactatatt gtgaggacag tgatcccatg gatgtcttgg gtattatg 168

<210> 2195
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2195

cgcgttcaact gcaatgttat atcccctact catcagttct atgggcatta ttgtctgttt 60
 gattactact ctttttgcaa ctgatttctt tgcgatcaag gctgtcaagg aaattgaacc 120
 agctctaaaa aagcagctta tcatctctac agtactcatg actgttggaa ttgccattat 180
 tagttggatt gctc 194

<210> 2196
 <211> 190
 <212> nucleic acid
 <213> Glycine max

<400> 2196

gtgatccctt ggatgtcttg attattatgc aggagccggt tcttccaggt tgctttcttc 60
 gggccaaagc aattggtctc atgcccatga ttgatcaggg ggagaaagat gataaaatta 120
 ttgctgtctg tgctgatgat cctgagtata gacattacaa tgatatcaaa gagcttcctc 180
 cacatcgttt 190

<210> 2197
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<220>

<221> unsure
<222> (233)
<223>

<400> 2197

agtgttttgc ttttgcgtgt gtacaagatg agtgatgaga atggcgaaga acctcgagaa 60
aaccgtccgg ttccacgctt gaatgaaagg attctttcat ctctgtctag gagatcagtt 120
gctgctcacc cttgcatgat cttgaaattg gacctggagc gcctatgatt ttcaattgtg 180
ttgtggagat cactaaggga agcaagggtca aatacgaact tgacaaaaag acnggattaa 240
ttaagggtga tcggattctg tactc 265

<210> 2198
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 2198

tttcaaagta tttgctttta ttttttggtg aaaaagtgtt ttgcttttgc tgttgtacaa 60
gatgagtgat gagaatggcg aagaacctcg agaaaaccgt ccggttccac gcttgaatga 120
aaggattctt tcatctctgt ctaggagatc agttgctgct cacccttggc atgatcttga 180
aattggacct ggagcgcctt gatcttcaat tgtgttgtgg agatcactaa gggaagcaag 240
gtcaaatacg aacttgacaa 260

<210> 2199
<211> 236
<212> nucleic acid
<213> Glycine max

<400> 2199

acacgttctc tgtgactgcc tctgttccgc caagcgcagc attgccccac cgttcaggcc 60
accggctgag ttaggtttcc ggcgaggatg ggtgctgctc tgctgtcgga gcttgcgacg 120
gagatagtcg tgccagtgtg cgccgtcatc gggatcgtgt tctcgtggtt gcagtgggtc 180
ctcgtgtcgc gcgtaagct cactcccgac cgcaacggaa cgacgtcgtc gccgcg 236

<210> 2200
<211> 272
<212> nucleic acid

<213> Glycine max

<400> 2200

atgaaattga accagctcta aaaaagcagc ttatcatctc tacagtactc atgactgttg 60
gaattgcaat tattagttgg attgctctgc caacatcctt cacaattttc aactttggtg 120
ctcagaagga agtaaagagc tggcactggt cctctgtgtg ggtgttggtc tatgggctgg 180
acttattatt gcgtttgtta ctgagtacta tacaagcaat gcttacagtc ctgtacaaga 240
tgttgctgat tcctgccgga ctggagctgc aa 272

<210> 2201

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 2201

attgaaccag ctctaaaaaa gcagcttata atctctacag tactcatgac tgttgggaatt 60
gcaattatta gttggattgc tctgccaaaca tccttcacaa ttttcaactt tgggtgctcag 120
aaggaagtaa agagctggca gctgttcctc tgtgtgggtg ttggtctatg ggctggactt 180
attattgggt ttgttactga gtactataca agcaatgctt acagtctgtt acaagatggt 240
gctgattcct g 251

<210> 2202

<211> 244

<212> nucleic acid

<213> Glycine max

<400> 2202

cggaaggctt cagtactaag agccagccct gcacatatga taagagcaag ctatgcaagc 60
cagcccttgc gactgcattg tttagcactg tatctttctt gcttggtgct ataacttcag 120
tcctatctgg tttccttggg atgaaaattg caacctatgc caatgcaagg acaaccttgg 180
aagccagaaa gggagttgga aaggctttca ttactgcatt taggtctggt gcagtgatgg 240
gttt 244

<210> 2203

<211> 268

<212> nucleic acid

[illegible]

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<221>      unsure
<222>      (29)
<223>
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gagccagccc	tgcacatatg	ataagagcna	gctatgcaag	ccagcccttg	cgactgcatt	60
gttttagcact	gtatctttct	tgcttggtgc	tataacttca	gtcctatctg	gtttccttgg	120
gatgaaaatt	gcaacctatg	ccaatgcaag	gacaaccttg	gaagccagaa	agggagttag	180
aaaggcttca	ttactgattt	aggtctggtg	cagtgcaggg	tttccttctt	gcagcaaatt	240
gtcttttggg	gccctacatt	accatcaa				268

<211>	232
<212>	nucleic acid
<213>	Glycine max

```
<221>      unsure
<222>      (174)...(175),(180)
<223>      unsure at all n locations
```

tcacccttgg	cacgacttag	agattgggcc	aggagctcca	gcagttttca	actgtgtggt	60
tgaaattggc	aaaggaagta	aggttaagta	tgagctggac	aagacaagtg	gacttataaa	120
ggttgatcgt	attctttact	catcagtagt	ctaccacac	aactaacgat	attnccaan	180
aaccatttgt	gaagacagtg	atcctatgga	cgtgctggtt	ctaatgcagg	aa	232

<211>	266
<212>	nucleic acid
<213>	Glycine max

ctcaccttga agattcaagt gcatggaatt cgagtataacc tcaccctaag ctcaatgaaa 60
gaattctgtc ttctctgtca cggagaactg ttgtgtctca cccttggcac gatttagaga 120
ttgggccagg agctccagct gttttcaact gtgtggttga aattggcaaa ggcagtaagg 180

ttaagtatga gctggacaag acaagtggac ttataaaggt tgatcgtatt ctttactcat 240
cagttgtcta cccacacaac tatggt 266

<210> 2206
<211> 290
<212> nucleic acid
<213> Glycine max

<400> 2206

agttttctctt atctctaagt caacatggct caccatgaag attcaagtgt atggaattcg 60
agtatacctc accctaagct caatgaaaga attttgtctt ctctgtcacg gagaactggt 120
gctgctcacc cctggcacga tttagagatt gggccaggag ctccagctgt tttcaactgt 180
gtgggtgaaa ttggcaaagg cagtaagggt aagtatgagc tggacaagac aagtggactt 240
ataaagggtg atcgattctg tactcatcag ttgtctaccc acacaactat 290

<210> 2207
<211> 296
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (10), (24), (54), (94), (263)
<223> unsure at all n locations

<400> 2207

ctccgactcn ttctcttaat ccnnaagtc aacatgggct caccttggaa gatncaagtg 60
gcatgggaat tcgagtatac ctcaccctaa gctncaatga aagaattctg tcttctctgt 120
cacggagaac tgttgtctgt cacccttggc acgatttaga gattggggcc aggagctcca 180
gctgttttca actgtgtggt tgaaattggc aaaggcagta aggttaagta tgagctggac 240
aagacaagtg gacttataaa ggntgacgt attctttact catcagttgt ctaccc 296

<210> 2208
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 2208

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gtataacctca ccctaagctc aatgaaagaa ttctgtcttc tctgtcacgg agaactgttg 120
 ctgctcacc ctagagattg ggccaggagc tccagctgtt ttcaactgtg 180
 tggttgaaat tggcaaaggc agtaagggtta agtatgagct ggacaagaca agtggactta 240
 taaagggtga tctgtattct 259

<210> 2209
 <211> 287
 <212> nucleic acid
 <213> Glycine max

<400> 2209

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 gaattctgtc ttctctgtca cggagaactg ttgtctgtca cccctggcac gatttagaga 180
 ttggggcagg agctccagct gttttcaact gtgtggttga aattggcaaa ggcagtaagg 240
 ttaagtatga gctggacaag acaagtggac ttataaagggt tgatcgt 287

<210> 2210
 <211> 281
 <212> nucleic acid
 <213> Glycine max

<400> 2210

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 atcatgaaga ttcaagtgca tgggaattcga gtaaacctca ccctaagctc aatgaaagaa 120
 ttctgtcttc tctgtcacgg agaactgttg ctgctcacc ctagagattg 180
 ggccaggagc tccagcagtt ttcaactgtg tggttgaaat tggcaaagga agtaagggtta 240
 agtatgagct ggacaagaca agtggactta taaagggtga t 281

<210> 2211
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 2211

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acctcaccct aagctcaatg aaagaattct gtcttctctg tcacggagaa ctgttgctgc 120
 tcacccctgg cacgacttag agattgggcc aggagctcca gcagttttca actgtgtggt 180
 tgaaattggc aaaggaagta aggttaagta tgagctggac aagacaagtg gacttataaa 240
 gg 242

<210> 2212
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2212

tccgactctt tctcttatct ctaagtcaac atggctcacc atgaagattc aagtgtatgg 60
 tattcgagta tacctacccc taagctcaat gaaagaattt tgtcttctct gtcacggaga 120
 actgttgctg ctcacccctg gcacgattta gagattgggc caggagctcc agctgttttc 180
 aactgtgtgg ttgaaattgg caaaggcagt aagggttaagt atgagctgga caagacaagt 240
 ggacttataa aggtt 255

<210> 2213
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2213

tctgaactct ctctctcacc tataagtcaa catggctcat catgaagatt caagtgcattg 60
 gaattcgagt aaacctcacc ctaagctcaa tgaaagaatt ctgtcttctc tgtcacggag 120
 aactgttgct gctcaccctt ggcacgactt agagattggg ccaggagctc cagcagtttt 180
 caactgtgtg gttgaaattg gcaaaggaag taagggttaag tatgagctgg acaagacaag 240
 tggact 246

<210> 2214
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2214

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gaattcgagt aaacctcacc ctaagctcaa tgaaagaatt ctgtcttctc tgtcacggag 120
aactgttgct gctcacccct ggcacgactt agagattggg ccaggagctc cagcagtttt 180
caactgtgtg gttgaaattg gcaaaggaag taaggttaag tatgagctgg acaagacaag 240
tggact 246

<210> 2215
<211> 266
<212> nucleic acid
<213> Glycine max

<400> 2215

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aagattcaag tgcattggaat tcgagtaaac ctcacctaa gctcaatgaa agaattctgt 120
cttctctgtc acggagaact gttgtgtctc acccctggca cgacttagag attgggccag 180
gagctccagc agttttcaac tgtgtgggtt gaaattggca aaggaagtaa ggtaagtat 240
gagctggaca agacaagtgg acttat 266

<210> 2216
<211> 248
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (238)
<223>

<400> 2216

cagtcaccac ctctgaactc tctctctcat ctataagtca acatgggtca tcatgaagat 60
tcaagtgcac ggaattcgag taaacctcac cctaagctca atgaaagaat tctgtcttct 120
ctgtcacgga gaactgttgc tgcaccccc tggcacgact tagagattgg gccaggagct 180
ccagcagttt tcaactgtgt ggttgaaatt ggcaaaggaa gtaagggtta gtagagnct 240
gacaagac 248

<210> 2217
<211> 242
<212> nucleic acid

The first of these is the fact that the
 C_{60} molecule is a truncated icosahedron,
 which is a polyhedron with 32 faces,
 12 of which are pentagons and 20 are hexagons.
 This structure is very similar to a soccer ball,
 and it is this similarity that has led to the
 molecule being called a "buckyball".

The first step in the process of creating a new product is to identify a market need. This is often done through market research, which involves gathering information about potential customers and their preferences. Once a market need has been identified, the next step is to develop a concept for a product that addresses this need. This concept should be based on the market research and should take into account factors such as cost, feasibility, and potential profitability.

```
ctgaactctc tctctcatct ataagtcaac atgggtcatc atgaagcatt caagtgcac 60
gaattcgagt agacctcacc ctaagctcaa tgaaagaatt ctgtcatctc tgtcacggag 120
aactgttgct gctcaccctt ggcacgactt agagattggg ccaggagttc cagcagtttt 180
caactgtgtg qttgaa 196
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<400> 2221

ccaagacgag cttcaccttg cgccgaaggc cacagatggt tgaaacgat atggatgccg 60
aaactgttgc aaatgtggtt ccaccaaagg agactcctca cagtgttccc atctcttata 120
attcctcaca ctcacacctt tctcttaatg agaggattat ttcattcatg accagaagat 180
ctgttgctgc acaccgtgg cacgaccttg agatagggcc tgggtgct 227

<400> 2222

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caaacatggt	cccatctctt	atcattcctc	acactcacac	cctcctctta	atgagagatt	180
atttcatcca	tgaccagaag	atctgttgct	gcacaccctg	ggcacgacct	tgagataggg	240
cctggtgctc	caa					253

778

[illegible]

gtcgaaatag	ggaaaggaag	caaggtgaaa	tatgaacttg	acaaaagaac	tggacttatt	60
atggttgata	gtatacttta	ctcatcagtt	gtttatcctc	acaactatgg	gttcattcca	120
cgtactattt	gtgacgacgg	tgatcccatg	gatgtcttgg	ttattatgca	ggagccagtt	180
cttcggggtt	gctttcttcg	ggccaaagct	attgggtctca	tgcttatgat	tgatcagggg	240
gagacagatg	acaaqataat	tqctgtctgt	gctgat			276

<400> 2224

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tgaaatatga	acttcacaaa	agaactggtc	ttattatggt	tgatcgtatc	ctttactcat	120
cggctgtgta	tcttcacaac	tatgggttta	tcccacgtac	tatttgtgag	gatggtgatc	180
ccatggatgt	cttggttatc	atgcaggagc	cagttcttcc	aggttgcttt	ctacggggcca	240
aaqctattgg	actcatgcct	atgattgat				269

<400> 2225

cttaacgaga	ggattctttc	atccatttcc	aggagacacg	ttgctgcaca	cccgtggcac	60
gatcttgaga	taggacccga	agctccaaag	atcttcaact	gtgtggtcga	aatagggaaa	120
ggaagcaagg	tgaaatatga	acttgacaaa	agaactggac	ttattatggt	tgatcgtata	180
ctttactcat	cagttgttta	tcctcacaa	tatgggttta	ttccacgtac	tatttgtgag	240
gacgggtgatc	ccatggatgt	cttgggtatta	tgcagg			276

779

<212> nucleic acid
<213> Glycine max

<400> 2226

ggaaacatgt tgctgtcac ccgtggcatg atcttgagat aggacctgaa gctccaaaga 60
tcttcaactg tgtgggtgaa attgggaaag gaagtaagggt gaaatatgaa cttgacaaaa 120
gaactggtct tattatgggt gatcgtatcc ttactcatc ggttgtgtat cctcacaact 180
atgggtttat cccacgtact atttgtgagg acggtgatcc catggatgtc ttggttatca 240

<210> 2227
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2227

acttattatg gttgatcgta tactttactc atcagttggt tatcctcaca actatggggt 60
tattccacgt actatgttg aggcagggtga tcccatggat gtcttggtta ttatgcagga 120
gccagtcttc cgggttggtt tcttcgggcc aaagctattg gtctcatgcc tatgattgat 180
cagggtgaga aagatgacaa gataattgct gtctgtgctg atgatcctga gtataggca 239

<210> 2228
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2228

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tgaaatatga acttgacaaa agaactgggt ttattatggt tgatcgtatc ctttcctcat 120
cggttgtgta tctcacaac tatgggttta tccacgtac tatttgtgag gatggtgatc 180
ccatggatgt cttggttatc atgcaggagc cagttcttcc aggttgcttt ctacgggcca 240
aagctattgg actcatgcct atgattga 268

<210> 2229
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2229

ctgtttcttc tttttctcca accttcgttt caccaccaca cttacattac tttgtcgaaa 60
 tggctccacc aattgagacc ccaaacaagg tttccagcta tcaacagtcc ccaaaccctc 120
 gtcttaacga gaggattctt agatacattt ccaggagaca cgttgctgca caccctgtgc 180
 acgatcttga gataggaccc gtagctccaa agatcttcaa ctgtgtgggc gaaatagggg 240
 aaggaagcaa ggtgaaatat gaacttgac 269

<210> 2230
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 2230

ttctcactct agatctgtgt ttctctctcc aaccttcggt tcaccacact tccatcactt 60
 gtcgagtgtg gaaatggctc caccaattga gaccccaacc aaggtttcca gctatcagca 120
 ctccccaaac cctcgtctta acgagaggat tctttcatcc atttccagga aacatgttgc 180
 tgctcaccog tggcatgatc ttgagatagg acctgaagct ccaaagatct tcaactgtgt 240
 ggttgaaatt gggaaaggca gtaagggtga 269

<210> 2231
 <211> 283
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (20), (167)
 <223> unsure at all n locations

<400> 2231

atttcatttc actcactcan tottcgtttc gttttctttt ctactctag atctgtgttt 60
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 accaattgag accccaacca aggtttccag ctatcagcac tccccanacc ctccgtctta 180
 acgagaggat tctttcatcc atttccagga aacatgttgc tgctcaccog tggcatgatc 240
 ttgagatagg acctgaagct ccaaagatct tcaactgtgt ggt 283

<210> 2232

<223>

<400> 2234

ctgcctctgt tccgccaaagc gcagcatttt cccaccgttc aggccaccgg ctgagttagg 60
tttccggcga ggatgggtgc tgcctctgctg tcggagcttg cgacggagat agtcgtgcc 120
gtgtgcgcgc tcatcgggat cgtgtttctcg ctgggtgcagt ggttcctcgt gtcgcgcgtc 180
aagctcactc ccgaccgcaa cggaaacgacg tcgtcgccgc gcaacaacaa aaacggctac 240
ggcgacttcc tcattgaaga agaagaaagc atcaacgacc acagcgtcgt tgtgaaatgc 300
gctgagatac agaacgctat ctccgaaggc gcaacatcct ttcttttcac tgaatatcaa 360
tatgtgggga tcttcatggt tgcttttgca atactgatct tnttttttct gtgctctgtg 420
gaaggcttca gtacta 436

<210> 2235

<211> 408

<212> nucleic acid

<213> Glycine max

<400> 2235

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tgttccgcgc aaccagcat tttcccaccg ttcggggccac cggcggagtt agttttccgg 120
caaggatggg tgcctgctctg ctgtctgagc ttgcgacgga gatagttgtg ccggcctgcg 180
ccgtcaccgg gatcgtgttc tcgttggtgc agtggttcct cgtgtcgcg gcgcaagctca 240
ctcccgaccg aaacggaacg acgtcgctgc cgcgcaacaa caagaacggc tacggcgact 300
tctcattga ggaggaagaa ggcacacacg accacagcgt cgttggtgaaa tgcgctgaga 360
tacagaacgc tatctccgaa agtgcaacat cttttctttt cactgaat 408

<210> 2236

<211> 396

<212> nucleic acid

<213> Glycine max

<400> 2236

gactctttct cttatctcta agtcaacatg gctcaccttg aagattcaag tgcattggaat 60
tcgagtatac ctcaccctaa gctcaatgaa agaattctgt cttctctgtc acggagaact 120

gttgctgctc acccctggca cgatttagag attgggccag gagctccagc tgttttcaac 180
 tgtgtgggtg aaattggcaa aggcagtaag gttaagtatg agctggacaa gacaagtgga 240
 cttataaagg ttgatcgtat tctttactca tcagttgtct acccacacaa ctatggtttt 300
 atcccaagaa ccatttgtga agacagtgat cctatggacg tgctggttct aatgcaggaa 360
 cccgtgcttc ctggttcctt ccctcgtgct cgtgct 396

<210> 2237
 <211> 376
 <212> nucleic acid
 <213> Glycine max

<400> 2237

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 gacgagcttc cccttgccgc gaagggccac cgatgggtga aaccgagatg gatgcagaaa 120
 ctgttgcaaa tgtggttcca ccaaaggaga ctccaaatag tgtttccatt tctcatcatt 180
 cctcacaccc tccccctaat gagaggatta tttcatccat gaccaggaga tctgttgctg 240
 cacacccatg gcatgacctt gagaatagga ctgggtgctca aattatcttc aattgtgtga 300
 ttgaaattgg gaaagggacc aagggtgaaat atgaactgga caaaaagtcg gggcttatca 360
 agatcgaccg cgtgct 376

<210> 2238
 <211> 352
 <212> nucleic acid
 <213> Glycine max

<400> 2238

agtacggctg cgagaagacg acagaagggg acagaacaat agtagcaagc agagccccaa 60
 gatctgtgct tgaaccttca cgtgtgtttc cttccttctg cagacgagct tcaccttgcg 120
 ccgaagggcc acagatgggt gaaaccgata tggatgccga aactgttgca aatgtggttc 180
 caccaaagga gactccaaac agtgttccca tctcttatca ttccctcacac tcacaccctc 240
 ctcttaataga gaggattatt tcatccatga ccagaagatc tgttgctgca caccgtggc 300
 acgaccttga gataaggcct gatgctccaa cgatcttcaa ttgtgtgatt ga 352

<210> 2239

<211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2239

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 ccgaagctcc aaagatcttc aactgtgtgg tcgaaataag gaaaggaagc aaggtgaaat 120
 atgaacttga caaaagaact ggacttatta tggttgatcg tatactttac tcatcagttg 180
 tttatcctca caactatggg tttattccac gtactatttg tgaggacggt gattccatgg 240
 atgtcctggg t 251

<210> 2240
 <211> 401
 <212> nucleic acid
 <213> Glycine max

<400> 2240

gagactcaac aagcattcca ctcacacctc atcgtttctc tctctagatc tctgtttctt 60
 ctttttctcc aaccttcgtt tcaccaccac acttacatta ctttgtcgaa atggctccac 120
 caattgagac cccaaacaag gtttccagct atcaacagtc cccaaaccct cgtcttaacg 180
 agaggattct ttcattccatt tccaggagac acgttgctgc acacccgtgg cacgatcttg 240
 agataggacc cgaagctcca aagatcttca actgtgtggt cgaaataggg aaaggaagca 300
 aggtgaaata tgaacttgtc aaaagaactg gacttattat ggttgatcgt atactttact 360
 catcagttgt ttatcctcac aactatgggt ttattccacg t 401

<210> 2241
 <211> 411
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (274)...(275),(312),(316)
 <223> unsure at all n locations

<400> 2241

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ttacattact ttgtcgaaat gggtccacca attgagaccc caaacaaggt ttccagctat 180
 caacagtccc caaacccctcg tottaacgag aggattcttt catccatttc cgggagacac 240
 gttgctgcac acccgtggca cgatcttgag atanngaccg aagctccaaa gatcttcaac 300
 tgtgtggtcg anatangga aggaagcaag gtgaaatatg aacttgacaa aagaactgga 360
 cttattatgg ttgatcgtat actttactca tcagttgttt atcctcacia c 411

<210> 2242
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2242
 caacaacaac aacaacgttg tagtgtgttg ttttgttttt tagtgcagtt tatttttttg 60
 gcatcaaagt ggttgaatcc atggattgtg gttatggtat tcccagggaa ctctcagatc 120
 ttcagaagat tcggtctttg taccagccag agctccctcc ttgtctccag ggaaccactg 180
 tgagggttga atttggtgac gcaaccacca ctgctgaccc cactgatgca gtcaccgtct 240
 gcagggtttt tcgtggcgct tgtggacacc ttt 273

<210> 2243
 <211> 340
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (122), (279), (313)
 <223> unsure at all n locations

<400> 2243
 aaccatggct atgtctacta ttttgccttt gactttcttt tctttcattt atggcagtgc 60
 agctactcat cacgtttata gaaatcttca gagtttatct tctgattcct ccaaccaacc 120
 tnacagaact gcttatcact tccaacctcc caagaattgg ataaatgatc ccaatggacc 180
 atgagatatg caggacttta ccacctattc tatcaatata atcctaaagg tgcagtttgg 240
 ggaaatattg tgtgggcaca ttcagtgtca aaggatctng tgaattggac tccactagat 300
 cctgccattt ttncatctca accgtccgat ataatggctg 340

The first two steps of the algorithm are to find the minimum and maximum values of the function $f(x)$ over the domain D . This is done by evaluating $f(x)$ at the endpoints of the domain and at any points where the derivative is zero. The third step is to find the minimum and maximum values of the function $f(x)$ over the domain D . This is done by evaluating $f(x)$ at the endpoints of the domain and at any points where the derivative is zero.

<400>	2244
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<400> 2245

<400> 2246

787

actggaatgt gggagtgcc tgatttctat ccagtgtga ataataaacc atcatcaact 240
attggtcttg acacatctgt gaatggt 267

<210> 2247
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2247

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tggggagaaa gggagaattt gtattaccag tagagtttat ccctcgttgg ctattgacaa 120
agatgcacat cttgatgttt tcaagaatgg aagccagagt gtggtgatct ctgaactgaa 180
tgcttgagagc atgaaggaag cagaatttag ttaagaagaa agcacaatta agctgtaact 240
aaaaagattt gga 253

<210> 2248
<211> 276
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (21), (43), (275)
<223> unsure at all n locations

<400> 2248

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gaaaaacagc cttaccgaac ttggtaccac tttcagcccc cacaaaattg gatgaatgat 180
ccaaatggac caatgtacta caaaggagtt taccactttt tctaccaaca taacccttat 240
gcaccaacct ttggtaggca tatggtatgg ggtcnt 276

<210> 2249
<211> 261
<212> nucleic acid
<213> Glycine max

<400> 2249

cctagctctt gttgacattc caataacttt ggtgctatga tcatggagat caatgcatcc 60
 cccgacaaca ttaattcagt caagtacaac gtacatgaaa aacagcctta ccgaacttgg 120
 taccactttc agccccaca aaattggatg aatgatccaa atggaccaat gtactacaaa 180
 ggagtttacc actttttcta ccaacataac gcttatgcac caactttggg aggctatggg 240
 atgggggtcat ccgcatctat g 261

<210> 2250
 <211> 339
 <212> nucleic acid
 <213> Glycine max

<400> 2250

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 cctcaaaaac catttttgag gatggaaaga acagaatggg cttattgggt tgggttaatg 120
 aatcctcaag tgtttcggat gatatacaaga aaggatgggc tggaatccat actattccaa 180
 gggccatctg gcttcataaa tctggaaaac agttgggtgca atggccgggtg gtggaacttg 240
 aaagcttacg tgtgaatcct gtccactggc ccaacaaaagt ggtcaaagggt ggtgaaatgc 300
 ttcaagttac tgggtgttact tgcgcacaag ctgacgttg 339

<210> 2251
 <211> 437
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (14)
 <223>

<400> 2251

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 tctcaagtg tttcggatga tatcaagaaa ggatgggctg gaatccatac tattccaagg 120
 gccatctggc ttcataaaatc tggaaaacag ttgggtgcaat ggccgggtggg ggaacttgaa 180
 agcttacgtg tgaatcctgt ccaactggccc accaaagtgg tcaaagggtg tgaaatgctt 240
 caagttactg gtgttactgc ggcacaggct gacgttgaaa tttcatttga cgtgaatgag 300
 tttggaaagg gcgaagtatt ggaccaatgg gtggatcccc aaattctggg tagtagaaaag 360

<221> unsure
<222> (401)
<223>

<400> 2254

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tcttcccatt gaagctaccc accatgttta cagaaatctt cagactctat cttctgattc 120
ctctgatcaa ccttatagaa ccgcttacca tttccaacct cccaaaaaatt ggataaatga 180
ccctaattgga ccaatgaggt acaaaggact ttatcatctc ttctaccaat acaatccaaa 240
aggtgctggt tggggtaata ttgtgtgggc cactcagta tcaaaggatc ttgtgaattg 300
gacccctcta gatcatgcca tctacccttc tcaaccgtct gatatcaacg gttgttggtc 360
aggtcagcc acaatacttc ctgggggcaa accagccatt ntatacacag gaattgaccc 420
taataatcac caagttcaaa acttagccct a 451

<210> 2255
<211> 283
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (17), (35), (52), (61), (69), (94), (103), (120), (138), (166),
(179), (202), (212), (230), (240), (273)
<223> unsure at all n locations

<400> 2255

gttttcataag gcttctnttt tctcttggtg cagtnacgaa cttctgaaga antggcagat 60
ncatccttng acacactctc actctttccg cganagggtt cangacaact ctactggtg 120
cacaggaacg aaattttngc ccttgctgtg caaggcttga agccangggc aagggaatnc 180
tgcaacatgc accaagtggg tncagagttt gnagacatcc ctgaggagan cagaaagaan 240
ctgccaaagat ggtgtcttgg agaagttttg agntccacac agg 283

<210> 2256
<211> 267
<212> nucleic acid
<213> Glycine max

<400> 2256

<211> 271
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (4)...(5),(169),(229)
 <223> unsure at all n locations

 <400> 2259

 gtgnaagct catgttatct acagctgaga attcaactta aatggatttg aatgttcata 60
 tgtgtagtgc acaatcgcg atgcacttga gaagacaaaa tatccagatt cagatttata 120
 ttggaagaaa tttgaggata aataccactt ttcatgccaa tttactgcng acctaatagc 180
 catgaattct gctgatttta tcatcaccag tacataccag gagattgcng gaacgtaagt 240
 accgttttca tgatatatat ggttacttca g 271

<210> 2260
 <211> 245
 <212> nucleic acid
 <213> Glycine max

 <400> 2260

 ggcttgttga atgcttttgt aaaagctcca agctgagaga gcttgtgaat cttgtggtag 60
 ttggtggcta cattgatgta cagaagtcta cggacataga agaaatgagg gagatagaga 120
 aaatgcacaa tctcatagaa gaatacaact tacatggcca attccgttgg ataaaggccc 180
 aaatgaatcg cgctcgtaat ggagagctct accgttatat tgctgatgtg aaagggtgctt 240
 ttgtg 245

<210> 2261
 <211> 98
 <212> nucleic acid
 <213> Glycine max

 <400> 2261

 catgagcttg ccaaagagtt gcaaggctcag ccagattcga ttgtcggaaa ctacagtgat 60
 ggaaacattg ttgcctcttt gttggcacat aaattagg 98

<210> 2262
 <211> 209

<212> nucleic acid
<213> Glycine max

<400> 2262

actctatata acccacctct ctttattgcg ttcattctgt tttactgttg aagtctttca 60
ctagccaata gccaccgatc atttgacctg gttcacagtc tacgtgagag gcttgatgaa 120
accctcactg ccaacaggaa tgaaatttag gcccatcagt caaggatcga tgtcaagggc 180
aaaggcatca tacaaaaaca ccaggtcac 209

<210> 2263
<211> 175
<212> nucleic acid
<213> Glycine max

<400> 2263

cagaattcaa aacgcagatg cactccaaca tgttctgagg aaagctgagg agtatcaggg 60
cacagtgcct cctgaaactc cctactcaga atttgagcac aagttccagg agattgggtt 120
ggagagaggg tggggtgaca acgcggagggt gatccttgag tcaattcaaa ttctc 175

<210> 2264
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2264

tgggtgtatag agaatgtcgt gttgctgac attccattgg gccattggaa attcgtgttg 60
tgaggagtgg gagctttaag gagcttatag atgatgcagt ctcaagagggt gcggccataa 120
atcaagaaga tgtgtggcct catcgagacc tacagattga acggccaatt cagatggata 180
tcgtctcaga tgaaccgtgt gaggaacgaa gagctctacc gtgtcgtctg tgacacaagg 240
ggtgcctatg tgcaactgca gtt 263

<210> 2265
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2265

ctccgagcac aagttcgtgc tgaaggacaa gaagaagccg atcatcttct cgatggcgcg 60

tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg tacggcaaga acgcgcgcct 120
gagggagctg gogaacctcg tgatcgctgc cggtgaccac ggcaaggagt ccaaggacag 180
ggaggagcag goggagttca agaagatgta cagcctcatc gacgagtaca agttgaaggg 240
ccatatccgg tggatctcgg cgcagcatga accgcgtcc 279

<210> 2266
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2266

agggatctct gatttcatca ttggaaacta cagtgatggg aatcttggtg catctttatt 60
ggcttataaa atgggagtta cacagtgcac aatcgcgcat gcacttgaga agacaaaata 120
tccagattca gatttatatt ggaagaaatt tgaggataaa taccactttt catgccaatt 180
tactgctgac ctaatagcca tgaataatgc tgattttatc atcaccagta cataccagga 240
gattgcggga 250

<210> 2267
<211> 52
<212> nucleic acid
<213> Glycine max

<400> 2267

ggtgttcgga actgagcact cccacattct togagttccc tttagaactg ag 52

<210> 2268
<211> 236
<212> nucleic acid
<213> Glycine max

<400> 2268

caattttgta ttggagcttg attttgagcc atttaatgcc acatttcctc gtccaactcg 60
ctcagcatcc attggcaatg gtgtccaatt tctcaatcgc cacctttcat ctattatgtt 120
tcgcaacaag gattccttgc agcccttgct tgatttcctc cgagctcaca aatacaaggg 180
ccatgctctg atgttaaagt atagaataca aaccatttcc aaacttcagc tgcatt 236

<210> 2269
 <211> 243
 <212> nucleic acid
 <213> Glycine max

 <400> 2269

 cagattcaga tttatattgg aatctggata ttttgtcttc tcaagtgcac gcgcgattgt 60
 gcaactgtgta actcccatgt gatacactca atgaagatgc acttgagaag acaaaatata 120
 cagattcaga tttatattgg aagaaatttg aggataaata ccacttttca tgccaattta 180
 ctgctgacct aatagccatg aaaatgcgtg ttttatcatc accagtacat accaggagat 240
 tgc 243

<210> 2270
 <211> 86
 <212> nucleic acid
 <213> Glycine max

 <400> 2270

 ggtgggcagg ttgtttatat actagatcaa gtgcgtgccc ttgaaaatga gatgctcctt 60
 cggatcaaga aacagggact tgattt 86

<210> 2271
 <211> 234
 <212> nucleic acid
 <213> Glycine max

 <400> 2271

 attttataat cactagtaca taccaagaaa ttgcaggaag caagaataat gttggacaat 60
 atgagagcta cactgccttc actcttccag gactgtatcg tgttgttcat ggcattgatg 120
 tttttgatcc caagttaaata atcgtgtctc ctggtgcgga catgtgcata tattttccat 180
 actcggacag agaaaggaga ctaacttctc tacatgggtc aattgaaaaa ctgg 234

<210> 2272
 <211> 121
 <212> nucleic acid
 <213> Glycine max

 <400> 2272

 cgttcattct gttttccagt tgaagtcttt ccacagccaa tggccactga tcgtttgacc 60

cggggttcaca gtctccgtga gacgcttgat gaaaccctca ctgccaacag gaacgaaatt 120
t 121

<210> 2273
<211> 167
<212> nucleic acid
<213> Glycine max

<400> 2273

cgcaacgagt tcattctctt tctctccagg tatgttgctg ggggcaaagg aatactacaa 60
ccacatgacc tgctgtacga ggtagaaaag cttcttgaag aggatgaagg gatgcagaaa 120
ctcaaagata gcccttttgt caaagagcgt gaatctcaaa ggaagca 167

<210> 2274
<211> 221
<212> nucleic acid
<213> Glycine max

<400> 2274

gaagaactta accggggttag ttgaatggta tggcaagaac aagagactga gaaatttggt 60
gaaccttgct atagtaggag gcttctttgc cccttcaaaa tcaaaagata gggagggaaat 120
ggcagaaata aaaaatatgc atgacttaat tgataagtac caactcaagg gtcaatttag 180
atggattgct gctcagacta ataggtatcg caatggagag c 221

<210> 2275
<211> 166
<212> nucleic acid
<213> Glycine max

<400> 2275

gtcaagggaa agactgtgat gtggaatgac agaattcaaa acccagatgc agtccaacat 60
gtgctgagga gagctgagga gtatcgaggc acagtgcctc ctgaaacgcg ctactcagag 120
tttgagcacg agggccagga gattgggttag aggagagggg ggggtg 166

<210> 2276
<211> 222
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (184), (188)
 <223> unsure at all n locations

<400> 2276

cgtgtgaaga acatcacagg actcgtggag tggtagcgta agaacgcgaa gtagagggag 60
 ttggtgaacc ttgtggttgt tgccggagac aggaggaagg agtcgaagga cttggaagag 120
 aaggccgaga tgaagaagat gtacggcctg atcgagacca aagtgttgaa cgggcaactc 180
 agantgantt cagtatagag taaccgatct aggaacggag ag 222

<210> 2277
 <211> 220
 <212> nucleic acid
 <213> Glycine max

<400> 2277

ctttgagcag agcaaggctg atccatctca ctgggcaaaa atctcccccg gtggactcaa 60
 gggatatcatg aggcatacac atggccaatt tactcggaca ggctcttgac actcactggt 120
 gtgtatcgct tctggaagca cgtgaccaat cttgaacgcc gtgcgagcaa acgttacctc 180
 gagatgttct atgctctcca gtaacgcaaa ttggctgagt 220

<210> 2278
 <211> 169
 <212> nucleic acid
 <213> Glycine max

<400> 2278

atgggagtta cacagtgcac aatcgcgcat gcacttgaga agacaaaata tccagattca 60
 gatttatatt ggaagaaatt tgaggataaa taccactttt catggcaatt tactgctgac 120
 ctaatagcca tgataaatgc tgatttaatc atcaccagtc attaccagg 169

<210> 2279
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure

<222> (34)
<223>

<400> 2279

ggttactttg cccaagataa tgtctgagtc gtancctgac acgtggtggg caggttgtgt 60
 acatcttagg tcaagttcgt gccttgagga atgagatgct caaccgcata aagacacaag 120
 gccttgatat cagcctcgt attctcatta ttactcgtct tcgccctgat gcagtaggaa 180
 ctacctgtgg ccaacgtcta gagaccgtat atgatactga atattgtgac attctccgag 240
 ttccttgcag aaccgaaa 258

<210> 2280
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2280

gcagacagat aaaggaatcc tgcatacatg gatttctcgc ttcgacattt acccctatct 60
 tgagagggtt actcaggatg caacagccaa gattcttgag ttcattggaag ggaaaccaga 120
 tctagttatt ggaaattaca ctgatggaaa tttagtagca tcaactaatgg ctagaaaact 180
 tgggataact cagggaacta tagcacatgc tttagagaag accaagtatg aagactcaga 240
 tgtcaagtgg caagagttgg accccc 265

<210> 2281
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (98), (122), (190)
 <223> unsure at all n locations

<400> 2281

gggttcaatt tctcaaccga catctgtcat cgttcatggt tcgtagcaaa gaaagtttgg 60
 aacctctcct tgcatttctt cgcacacaca gatatgangg tcatgcaatg atgctaaatg 120
 ancgatttta taacttatcc aagctccagt cttccttggc aaaggcagaa gaattacttt 180
 ctagactacn acccaatgca ccatattctg actttgaata tgaactacaa ggattgggat 240

ttgagagcgg ttggggtgat acagca

266

<210> 2282
<211> 254
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (214), (222), (241)
<223> unsure at all n locations

<400> 2282

cacaacacgg gttgcctcac tttactctgc cgcagatggt tatgttataa actctcaggg 60
gctgggagaa acatttggac gtgtgactat agaagcaatg gcgtttggtc ttccggttct 120
tgggacggac gctggaggaa cacaggagat tgttgagcac aatgttacag gtctcttcat 180
cctgttggac atccggggaa tcttgttctt gcanagatcc cnggttttta ctcaaaaacc 240
ngtgggaaag gaac 254

<210> 2283
<211> 152
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (57), (66)
<223> unsure at all n locations

<400> 2283

gctggaagca aggacactgt tggacagtac gaatctcaca cagcatacaa tcacccngga 60
ctctancgcy ttgtgcatgg tagggatgtc tttgagcgag aattcaacat tggctcccct 120
ggagctgata aaaccattta cttgccccca ca 152

<210> 2284
<211> 224
<212> nucleic acid
<213> Glycine max

<400> 2284

gcctggtgtg tgggagtact gacagcgcat gtgcacgctc ttattgtaga ggagttgcaa 60

cctgctgagt accttcaatt gaaggaagca cttgctgatg gtagtatcta atggcgactt 120
 tgtgcttgag taggactttg aagcactcaa tgcagccttc tactgogtca gtcctaaca 180
 agtcaactgg agatggtgtg gagtactcat gcgcacactt tctg 224

<210> 2285
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2285

tcctcttttg cgttcactct ggtctcatag tgacgaactt ctgaagaaat ggcacatcat 60
 cctgtgacac actctcactc tatccgcgac acgcttgaac ccaagggcaa tggaaatcctg 120
 caacatcacc aagtgggttg agagtatgaa gaaatccctg aggagagcag aaagaaaactc 180
 caagatggtg tctttggaga agttttgaga tccacacagg aagccatagt gctgccacca 240
 cttgtagctc ttgctgttcg accaaggcct ggt 273

<210> 2286
 <211> 238
 <212> nucleic acid
 <213> Glycine max

<400> 2286

ggaatatctg cgtgtgaatg tgtacatgct tgttgttgat gagcttcgtc ctgctgagta 60
 tctgcgtttc aaggaggagc ttgttgaggg aagttcaaac ggcaacttat gtgcttgagt 120
 tggactttga accgtttaat gcaccccttc ctgcgcccaa ctctgaacaa gtccattgga 180
 aatggcgctg agttcctcaa ccgcacactt tcggccaagc tctccacac aacatacg 238

<210> 2287
 <211> 179
 <212> nucleic acid
 <213> Glycine max

<400> 2287

tacggctgcg gaagacgaca gaaggggggg ggttgaagat acaagggaga gagacttaca 60
 tgtgttcttc attctccact gagctgtaaa gaagctcttc aatgtcagag tggaaattctg 120
 ttaacctagg ctcaagtttca gtgtatggga agtatatacc catgtctgca ccgggagag 179

<210> 2288
 <211> 293
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (272)
 <223>

<400> 2288

gcgtttcaag gaggagcttg ttgaggggaag ttcaaacggc aactttgtgc ttgagttgga 60
 ctttgaaccg tttaatgcat ctttccctcg cccaactctg aacaagtcca ttggaaatgg 120
 cgtcgagttc ctcaaccgcc acctttcggc caagctcttc catgacaagg agaaccctca 180
 gtaactgctt gagttcctca ggcttcacag ttataaggga aagaccatga tggtgaacga 240
 caaagttcaa agcctggatt ctctccacat angatttgag aaaagcagaa gag 293

<210> 2289
 <211> 293
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 2289

cttcttcttt tacgttcatt ctgttttcat agtgaggatc ttctnaagaa atggcaaadc 60
 accctttgac acactctcac tctttccgcg agaggtttga tgaaactctc actggtcaca 120
 ggaatgaaat tttggccctt ttgtcaaagc ttgaagccaa gggcaaggga atcctgcaac 180
 accaccaggt gggtgcagag tttgaagaaa tccctgagga gagcagaaaag aaactccaag 240
 gtggtgtctt tggagaagtt ttgagatcta cacaggaagc catagtgtctg cca 293

<210> 2290
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 2290

gatcttctga agaaatggca aatcaccctt tgacacactc tcactctttc cgcgagaggt 60
 ttgatccaac tctcactggg cacaggaatg aaattttggc ccttttgtca aggcttgaag 120
 ccaagggcaa gggaatcctg caacaccacc aggtggttgc agagtttgaa gaaatccctg 180
 aggagagcag aaagaaactc caaggtggtg tctttggaga agttttgaga tctacacagg 240
 aagccatagt gctgccacca tttgtgg 267

<210> 2291
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<400> 2291

ccttcctttt ttgcgttcat tctgttttca tagtgacgaa cttctgaaga aatggcaaata 60
 catcctttga cacactctca ctctttccgc gagaggtttg atgaaactct cactggtcac 120
 aggaacgaaa ttttggccct tctgtcaagg cttgaagcca agggcaaggg aatcctgcaa 180
 catcaccaag tggttgcaga gtttgaagaa atccctgagg agagcagaaa gaaactccaa 240
 gatggtgtct ttggagaagt tttgaga 267

<210> 2292
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2292

gatcttctga agaaatggca aatcaccctt tgacacactc tcactctttc cgcgagaggt 60
 ttgataaaac tctcactggg cacaggaatg aaattttggc ccttttgtca aggcttgaag 120
 ccaagggcaa gggaatcctg caacaccacc aggtggttgc agagtttgaa gaaatccctg 180
 aggagagcag aaagaaactc caaggtggtg tctttggaga agttttgaga tctacacagt 240
 aagccatagt gctgccacca tttgtggc 268

<210> 2293
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2293

cttcacccct tccttttttg cgttcattct gttttcatag tgacgaactt ctgaagaaat 60
 ggcaaatcat cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac 120
 tggtcacagg aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat 180
 cctgcaacat caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaaagaa 240
 actccaagat ggtgtcttt 259

<210> 2294
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2294

tccttttttg cgttcattct gttttcatag tgacgaactt ctgaagaaat ggcaaatcat 60
 cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac tggtcacagg 120
 aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat cctgcaacat 180
 caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaaagaa actccaagat 240
 ggtgtctttg gagaagt 257

<210> 2295
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2295

tagcaccct tcttctttta cgtacattct gttttcatag tgaggttctt ctgaagaaat 60
 ggcaaatcac gcctttgaca cactctcact ctttccgcga gaggtttgat gtaactctca 120
 ctaggtcaca ggaatgaaat tttggccctt tatgtcaagg cttgaagcca agggcaaggg 180
 aattctgcaa caccaccagg tggttgcaga gtttgaagaa atccctgagg agagcagaaa 240
 gaaactccaa ggtggtgtct ttggagaagt tttgagatc 279

<210> 2296
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2296

caccccttct tcttttacgt tcattctgtt ttcatagtga ggatcttctg aagaaatggc 60
aatcacccct ttgacacact ctactcttt ccgcgagagg tttgatgaaa ctctcactgg 120
tcacaggaat gaaatttttg cctttttgtc aaggcttgaa gccaaaggga agggaaatcct 180
gcaacaccac caggtgggtg cagagtttga agaaatccct gaggagagca gaaagaaaact 240
cca 243

<210> 2297
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2297

cttcttcttt tacgttcatt ctgttttcat agtgaggatc ttctgaagaa atggcaaatac 60
accctttgac acactctcac tctttccgcg agaggtttga tgaaactctc actggtcaca 120
ggaatgaaat tttggccctt ttgtcaaggc ttgaagccaa gggcaaggga atcctgcaac 180
accaccaggt ggttgcagag tttgaagaaa tccctgagga gagcagaaaag aaactccaag 240
gtgg 244

<210> 2298
<211> 281
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (59), (138), (142), (146), (187), (217), (233), (237),
(240)... (241), (269)
<223> unsure at all n locations

<400> 2298

ccttcacccc ttcctttttt gcgttcattc tgttttcata gtgacgaact tctgaagana 60
tggcaaataca tcttttgaca cactctcact gctttccgcg agaggtttga tgaaactctc 120
actggtcaca ggaacganat tntggncctt ctgtcaaggc ttgaagccaa gggcaaggga 180
tcttgnaca tcaccaagtg gttgcagagt ttgaagngat ccctgaggag agnaganacn 240
natcccagga tgggtgtcttt ggagaagtnt tgagatccac a 281

<210> 2299

<211> 268
 <212> nucleic acid
 <213> Glycine max

 <400> 2299

 attttccctt tcaacccttc cttttttgag ttcattctgt tttcatagtg acgtacttct 60
 gatgaaatgg caaatcatcc ttgacacac tctcactctt tccgcgagag gtttgattta 120
 actctcactg gtcacaggaa cgaaattttg gtccttctgt caaggcttga agccaagggc 180
 tagggaatcc tgcaacatca ccaagtgggt gcagagtttg aagaaatccc tgaggagagc 240
 agaaagaaac tccaagatgg tgtctttg 268

<210> 2300
 <211> 346
 <212> nucleic acid
 <213> Glycine max

 <400> 2300

 ctcattctat tttcatagtg acgaacttct gaagaaatgg caaatcatcc ttgacacac 60
 tctcactctt tccgcgagag gtctgatgaa actctcactg gtcacaggaa cgaaattcta 120
 gcccttctgt caagagctga acccaagggc aagggaatcc tgcaacatca ccaagtgggt 180
 gcagagtttg acgaaatccc tgaggcgagc agaaagaaac tccaagatga tgtctttcga 240
 gcaattttga gatccacaca ggaagccata atgctaccac catttgtagc tcttgctggt 300
 cgaccatggc ctctgtatg ggactatctg cgtgtgaatg tgcaca 346

<210> 2301
 <211> 245
 <212> nucleic acid
 <213> Glycine max

 <400> 2301

 gaagaaatgg caaatcatcc ttgacacac tctcactctt tccgcgagag gtttgatgaa 60
 actctcactg gtcacaggaa cgaaattttg gcccttctgt caaggcttga agccaagggc 120
 aagggaatcc tgcaacatca tcaagtgggt gcagagtttg aagaaatccc tgaggagagc 180
 agaaagaaac tccaagatgg tgtctttgga gaagttttga gatccacaca ggaagccata 240
 gtgct 245

<210> 2302
 <211> 233
 <212> nucleic acid
 <213> Glycine max

 <400> 2302

 ttcccccttca ccccttcctt ttttgcggtc attctgtttt catagtgcgc aacttctgaa 60
 gaaatggcaa atcatccttt gacacactct cactctttcc gcgagagggt tgatgaaact 120
 ctcaactgggc acaggaacga aattttggcc cttctgtcaa ggcttgaagc caagggcaag 180
 ggaatcctgc aacatcacca agtgggttgc gagtttgaag aaatccctga gga 233

<210> 2303
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (88)
 <223>

<400> 2303

 attctgtttt catagtgcgc aacttctgaa gaaatggcaa atcatccttt gacacactct 60
 cactctttcc gcgagagggt tgatgtanat ctcaactgggc acaggaacga aattttggcc 120
 cttctgtcaa ggcttgaagc caagggcaag ggaatcctgc aacatcacca agtgggttgc 180
 gagtttgaag aaatccctga ggagagcaga aagaaactcc aagatgggtg ctttggagaa 240
 gttttgagat ccacacaaca ta 262

<210> 2304
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2304

 ttcacccctt ccttttttgc gtacattctg ttttcatagg cttctttttt ctcttgttgc 60
 agtgacgaac ttctgaagat atggcaaata atcctttgac acactctcac tctttccgcg 120
 agaggtttga tggaactctc actggtcaca ggaacgaaat tttggccctt ctgtcaaggc 180
 ttgaagccaa tggttaaggga atcctgcaat atcatcaagt gggtgcagag tttgaagaac 240

atccctaacg agagcagaaa

260

<210> 2305
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2305

cccttccttt tttgcgttca ttctgttttc atagtgcga acttctgaag aaatggcaaa 60
tcatactttg acacactctc actctttccg cgagagggtt gatgaaactc tcaactggtca 120
caggaacgaa attttggccc ttctgtcaag gcttgaagcc aagggcaagg gaatcctgca 180
acatcaccaa gtggttgcag agtttgaaga aatccctgag gagagcagaa agaaactcca 240
agatggtgt 249

<210> 2306
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2306

ttgcacctg cctgttttgc gtgcattctg tcttcatagt gacgaacttc tggagaaatg 60
gcaaatactc ctttgacaca ctctactctt ttccgcgaga ggtttgatga gactctcact 120
ggtcacatga acgagattat tgcccttctg tcaaggcttg aagccaaggg caaggggaatc 180
ctgcaacatc accaagtggg tgcagagttt gaagaaatcc ctgaggagag cagaaagaga 240
ctccgagatg gtgccttgga gaagt 265

<210> 2307
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2307

cccttcacc ccttcttctt ttacgttcat tctgttttca tagtgaggat cttctgaaga 60
aatggcaaat cacccttga cacactctca ctctttccgc gagagggttg atgaaactct 120
cactggtcac aggaatgaaa ttttggccct tttgtcaagg cttgaagcca agggcaaggg 180
aatcctgcaa caccaccagg tgggtgcaga gtttgcagaa atccctgagg agagcagaaa 240

aaactccaag gtggt 255

<210> 2308
 <211> 157
 <212> nucleic acid
 <213> Glycine max

<400> 2308

cactctcact ctttccgcga gaggtttgat gtaactctca ctggtcacag gaatgaaatt 60
 ttggcccttt tgtcaaggct tgaagccaag ggcatgggaa tccttcaaca ccaccagggtg 120
 gttgcagagt ttgaagaaat cctgaggag agcagaa 157

<210> 2309
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2309

cttcacccct tccttttttg cggttcattct gttttcatag tgacgaactt ctgaagaaat 60
 ggcaaatcat cctttgacac actctcactc tttccgcgag aggtttgatg aaactctcac 120
 tggtcacagg aacgaaattt tggcccttct gtcaaggctt gaagccaagg gcaaggggaat 180
 cctgcaacat caccaagtgg ttgcagagtt tgaagaaatc cctgaggaga gcagaa 236

<210> 2310
 <211> 312
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (39)
 <223>

<400> 2310

gctccgcatt cggctcgagc atatacgttc attcactgnt catagtgagg atcctctgaa 60
 gaaatggcaa ctcacccttt gacacactca cactccttcc gcgagaggta tgatccaact 120
 ctactgggtc acaggaatgc aatcatggcc ctaatgtcca ggcttgaagc caagggcaag 180
 ggcatcctgc aacaccacca ggtggttgca gagtttgaag aaatccctga ggagagcaga 240

aagacactcc aaagtgggtgt ctttggagaa gttttgacct ctacacatga agccatcccg 300
ctgccaccat tt 312

<210> 2311
<211> 147
<212> nucleic acid
<213> Glycine max

<400> 2311

ccccctcacc ccttcttctt ttacgttcat tctgttttca tagtgaggat cttctgaaga 60
aatggcaaat caccctttga cacactctca ctctttccgc gagagggttg atgaaactct 120
cactggtcac aggaatgaaa ttttggc 147

<210> 2312
<211> 241
<212> nucleic acid
<213> Glycine max

<400> 2312

ttcccccttca ccccttcctt ttttgcgttc attctgtttt catagtgcgc aacttctgaa 60
gatatggcaa atcatccttt gacacactct cactctttcc gcgagagggt tgatgaaact 120
ctcactggtc caggaacgaa attttggccc ttctgtcaag gcttgaagcc aagggcaagg 180
gaatcctgca acatcaccaa gtggttgacg agtttgagga atcccctgag gaagccaaaa 240
a 241

<210> 2313
<211> 206
<212> nucleic acid
<213> Glycine max

<400> 2313

cccttcttct tttgcgttca ttctgttttc atagtgatga tcttcttgaa taatggcaaaa 60
tcaccctttg acacactctc actctttccg cgagagggtt gatgaaactc tcactggtca 120
caggaatgaa attttgggcc gtttgtcaat gcttgaagcc aacggcatcg gaatcctgta 180
ccactaccag gtggatgaat attttg 206

<210> 2314

<211> 299
 <212> nucleic acid
 <213> Glycine max

 <400> 2314

 ccctactctg aaaagcagaa cagacttaca gccctgcatg gttcaattga acagctatta 60
 tttgctcctg agcagactga tgaatacatt ggtttattga aagacaagtc aaagcccata 120
 attttctcca tggcaaggct agacagagta aaaaacataa ctggattggg agaaagcttt 180
 ggtaagaaca gcaaattgag ggaactgggc aaccttgtca tagtagctgg ttatattgat 240
 gtaaagaagt ccagtgcag agaagaaatt gcagaaattg agagatgcat gagctcatg 299

<210> 2315
 <211> 271
 <212> nucleic acid
 <213> Glycine max

 <400> 2315

 gcagaacagg cttacagccc tgcattgggc aattgaaaag ctgttatttg atcctgagca 60
 gactgatgaa tacattgggt cattgaaaga caagtcaaag ccataattt tctccatggc 120
 aaggctagac agagtgaaaa acataactgg attggtagaa tgctttggta agaacagcaa 180
 attgagggaa ctggtcaacc ttgtttagt agctgggttat attgatgtaa agaagtcgag 240
 tgacagagca gaaatggcag aaattgagaa g 271

<210> 2316
 <211> 235
 <212> nucleic acid
 <213> Glycine max

 <400> 2316

 gtttattgaa agacaagtca aagcccataa ttttctccat ggcaaggcta gacagagtaa 60
 aaaacataac tggattggta gaaagctttg gtaagaacag caaattgagg gaactgggtca 120
 accttgtcat agtagctggg tatattgatg taaagaagtc cagtgcaga gaagaaattg 180
 cagaaattga gaagatgcat gagctcatga aaaagtataa cttagttggg gattt 235

<210> 2317
 <211> 241
 <212> nucleic acid

cgcaattgag ttttataaat aatgtccgtg atttttagttt tgtcgccttc tctttctctc 60
ctcttatcga aagcgtaatc acaaaaactaa aatcacggac attatttat 109

<210> 2324
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2324

cataatttga ttgatgaact tgacaacatc cctggcgatg atcaagcaat agtggatcct 60
aaaaatgggc cctttgggtga aatcgtcaag tctgcaaagg aagccatagt tttgcctcct 120
tttgtggcaa tagcagttcg tccaagacct ggtgtttggg aatatgtccg tgtaaatgtc 180
tctgagctca gcgtggagca attaagtgtt tctgaatatc tcagcttcaa ggaagaactt 240
gtagatggaa agattaatga ca 262

<210> 2325
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2325

ctctcatgct tttttccact tgcaaaactcc aaattcactc tgacagtttt tgcagctaata 60
taagaagaac ttaacagaca tataaacata gtgatcggtta tgtctacgca accaaagctt 120
ggtcggattc ccagtatcaa gaccgagttg aagacactct ctctgctcac cgtaacgaac 180
tcattttctct cctctccagg tatgtggctc aggggagatg gatttttgcaa ccccataatt 240
tgattgatga acttgacaac atccctggcg at 272

<210> 2326
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2326

ctttaactca tgctttttcc cacttgcaaa ctccaaattc actctctgac agtttttgca 60
gccaatgaag aagaacttaa cagacatata aacatagtga tcgtcatgtc tacgcaacca 120
aagcttgggc ggatttccag tatcagagac cgagttgaag acactctctc tgctcaccgt 180

aacgaactca tttctctcat ctccaggtat gtggctcagg ggaaagggat tttgcaaccc 240
cataatttga ttgatgaact tgac 264

<210> 2327
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2327

gctttttccc acttgcaaac tccaaattca ctctctgaca gtttttgcag ctaattaaga 60
agaacttaac agacatataa acatagtgat cgcatgtct acgcaaccaa agcttggtcg 120
gatttccagt atcagagacc gagttgaaga cactctctct gctcacgta acgaactcat 180
ttctctcct 189

<210> 2328
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2328

gcatgcagcc actgcttgag ttctcaggc ttcacagtta taagggaag accatgatgt 60
tgaatgacaa agttcaaagc ctggattctc tccaacatgt tttgagaaaa gcagaagagt 120
atctgatttc agttgctcct gaaacacct actcggaatt cgagaacaga ttccgggaga 180
ttggtctgga gagggggtgg ggtgacactg cagagcgtgt cctcgagatg atccagcttc 240
tcttgacct tcttgaggca cctgaccctt gcaccctcg 279

<210> 2329
<211> 286
<212> nucleic acid
<213> Glycine max

<400> 2329

gagagtatgc agccactgct tgaattcctc aggcttcaca gttataaggg aaagaccatg 60
atgttgaatg acaaagttca aagcctggat tctctccagc atgttttgag aaaagcagaa 120
gagtatctga cttcagttgc tctgaaaca ccctactcag aattcgagaa caaattccgg 180
gaaattgggt tggagagggg gtggggtgac atcgccgagc gtgtcctcga gatgatccag 240

cttctcttgg accttcttga ggcacccgac ccttgctacc tcgaga 286

<210> 2330
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 2330

agcaactctg aacaagtcca ttggaaatgg cgtcgagttc ctcaaccgcc acctttcggc 60
 caagctcttc catgacaagg agagcatgca gccactgctt gagttcctca ggcttcacag 120
 ttataaggga aagaccatga tgttgaatga caaagttcaa agcctggatt ctctccaaca 180
 tgttttgaga aaagcagaag agtatctgat ttcagttgct cctgaaacac cctactcgga 240
 attcgaaaac agattccggg agattggtc 269

<210> 2331
 <211> 267
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (212), (216), (255)
 <223> unsure at all n locations

<400> 2331

gcatgcagcc actgcttgag ttcctcaggc ttcacagtta taagggaaag accatgatgt 60
 tgaatgacaa agttcaaagc ctggattctc tccaacatgt tttgagaaaa gcagaagagt 120
 atctgatttc agttgctcct gaaacaccct aactcggaat tcgagaaaca gattccggga 180
 gattgggtctg gagagggggg ggggtgacat gncgancgtg tcctcgagat gatccagttc 240
 tctggacttc ttgangcact gaccttg 267

<210> 2332
 <211> 152
 <212> nucleic acid
 <213> Glycine max

<400> 2332

tgcagccact gcttgaattc ctcaggcttc acagttataa gggaaagacc atgatgttga 60
 atgacaaagt tcaaagcctg gattctctcc agcatgtttt gagaaaagca gaagagtatc 120

tgacttcagtggtcctgaa acaccctact ca 152

<210> 2333
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2333

ctctccaaca tgttttgaga aaagcagaag agtatctgat ttcagttgct cctgaaacac 60
 cctactcgga attcgagaac agattccggg agattgggtct ggagaggtgg tggggtgaca 120
 ctgccgagcg tgtcctcgag atgatccagc ttctcctgga ctttcttgat gcacctgacc 180
 cttgcacctt cgagacattc cttggaagag tccctatggt ctataatgtt gttacctttc 240
 tccccatggt tactttgccc aagataatgt c 271

<210> 2334
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2334

ctccaacatg tgttgagaaa agcagaagag tatctgattt cagttgctcc tgaaacaccc 60
 tactcggaat tcgagaacag attccgggag attgggtctgg agaggggggtg ggggtgacact 120
 gccgagcgtg tctcagagat gatccagctt ctcttgacc ttcttgaggc acctgacctt 180
 tgcacctctg aatcattcct tggaagagtc cctatgggtct tcaatgttgt tatcctttct 240
 ccccatggtt actttgcca agata 265

<210> 2335
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2335

tgctgagatc attgagcatg gtatatcagg attccacatt gatccttata atcctgatca 60
 agcttcagag ctattgggtg aatttttcca aaagagcaag gaggaccag accattggaa 120
 gaaaatatct aatgggtggc ttcaaagaat ttatgaaagg tacacttgga agatttattc 180
 tgaaaggctt atgaccttg cgaggagttta tagtttctgg aaatacgttt ccaaattaga 240

243

<400>	2336
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<400> 2337

<400> 2338

818

[illegible]

t

241

<210> 2339
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2339

cttcttttgag aagtgcaagc ttgacccaac tcaactgggac aagatctcaa aggctggtct 60
 ccagcgtatt gaagagaagt acacatggca aatttactct cagaggcttc tcaactctcac 120
 cgggtgtctat ggcttctgga agcatgtgtc taaccttgac cgccgtgaga gccgccgcta 180
 tctcgagatg ttctatgctc tcaagtaccg caaattggct gagtctgtgc cccttgctgc 240
 tgagtaaact gaggataaag agttg 265

<210> 2340
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2340

ggctggtctc cagcgtattg aagagaagta cacatggcaa atttactctc agaggcttct 60
 cactctcacc ggtgtctatg gcttctggaa gcatgtgtct aaccttgacc gccgtgagag 120
 ccgccgtat ctcgagatgt tctatgctct caagtaccgc aaattggctg agtctgtgcc 180
 ccttgctgct gagtaaactg aggataaaga gttggataaa gaaatggagg aaccggcttt 240
 ttctttgtac attggagt 258

<210> 2341
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2341

gaagtcttga gatctacaca ggaagccata gttttgccac catggggttgc tctggctggt 60
 cgtccaagac ctggtgtgtg ggagtacctg agagtgaatg tgcacgtctt tgttggtgag 120
 gagttgcaac ctgctgagta cctgcacttc aaggaagaac ttgttgacgg aagttctaata 180
 ggcaactttg tgcttgagtt ggactttgaa ccattcaatg cagccttccc ccgccaacc 240

cttaacaagt caattggaaa tgggtgtgcaa ttcctc

276

<210> 2342
<211> 284
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (9), (142), (218), (222), (224), (237)
<223> unsure at all n locations

<400> 2342

caggaagcna tagttttgcc accatggggtt gctctggctg ttcgtccaag acctggtgtg 60
tgaggagtacc tgagagtga tgtgcacgct cttgttggtg aggagttgca acctgctgag 120
tacctgcact tcaaggaaga anttggtgac ggaagttcta atggcaactt tgtgcttgag 180
ttggatcttg aaccattgca atgcagcctt cccccgcna antncttaac aagtcantgg 240
aaatggtgtg caatcctcaa ccgtcacctt ctgccaaact ctcc 284

<210> 2343
<211> 245
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (27), (177)
<223> unsure at all n locations

<400> 2343

gaaaaagtat aacttagttg gtgattntcg ttggattgct gcccaaaca atagggcacg 60
taatggggag ctgtatcgct acatagcaga cacacaaggt gctttcggtc agcctgcttt 120
ctatgaagct tttggactta cagttgtgga ggccatgaat tgtggactcc ccacttntgc 180
tacttgccat ggtggtccgg ctgagatcat tgagcatggt atatcaggat tccacattga 240
tcctt 245

<210> 2344
<211> 191
<212> nucleic acid
<213> Glycine max

<400> 2344
 ggtgctttcg ttcagcctgc tttctatgaa gcttttggac ttacagttgt ggaggccatg 60
 aattgtggac tccccacttt tgctacttgc catggtgggc cggtgagat cattgagcat 120
 ggtatatcag gattccacat tgatccttat caccctgac aagcttcaca gctattagtt 180
 gaatttttcc a 191

<210> 2345
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (116)
 <223>

<400> 2345
 ctctccatgg ttactttgcc caagataatg tcttggggta cctgacactg gtggacaggt 60
 tgtttacatc ttggatcgag ttcgtgcctt ggagaatgag atgctcaacc gcacnagaa 120
 acaaggcctt gatatcacc ctcgtattct cattattact cgtcttctcc ctgatgcagt 180
 aggaactacc tgtggccaac gtctagagag gtatatgata ctgaatattg tgacattctc 240
 cgagttcctt tcagaac 257

<210> 2346
 <211> 218
 <212> nucleic acid
 <213> Glycine max

<400> 2346
 gtcttgggat accctgacac tgggtggacag gttgtttaca tcttggatca agttcgtgcc 60
 ttggagaatg agatgctcaa ccgcatcaag aaacaaggcc ttgatatcac cctcgtatt 120
 ctcattatca ctcgtcttct cctgatgca gtaggaacta cctgtggcca acgtctagag 180
 agggatatatg atactgaata ttgtgacatt ctcagagt 218

<210> 2347
 <211> 253
 <212> nucleic acid

<213> Glycine max

<400> 2347

ggattccttg cagcccttgc ttgatttcct ccgagctcac aaatacaagg gccatgctct 60
gttggttaaat gatagaatac aaaccatttc caaacttcag tctgcattgg ccaaggctga 120
ggattatctc tctaagcttg cacatgatac actctattca gagtttgaat atgtattgca 180
aggcatgggt tttagagagag gttgggggtgc tactgctgaa cgggtatttg agatgatgca 240
tctgctattg gat 253

<210> 2348

<211> 311

<212> nucleic acid

<213> Glycine max

<400> 2348

tcgaacgaga tgaagaagat gtacggcctg atcgagacct acaagttgaa cggccaattc 60
agatggattt catcgcagat gaaccgtgtg aggactggag agctctaccg cgtgatctgc 120
gacaccaggg gtgctttcgt gcagcctgct gtatacgagg ctttttggtt gacagtgggt 180
gaggccatga cttgcggctt gccaacattc gccacatgca atggtggtcc tgctgagatc 240
attgtgcacg gcaagtctgg cttccacatt gacccttacc atggtgaccg tgctgctgat 300
ctccttggtg a 311

<210> 2349

<211> 342

<212> nucleic acid

<213> Glycine max

<400> 2349

tggagctttc gtgcagccgg ctatatacga ggcttttcgt ttgacagtgg ttgaggccat 60
gacttggtggg ttgccaacat tcgccacatg caatgggtgg cctgctgaga tcattgtgca 120
tggcaagtct ggcttccaca ttgaccctta ccatgggtgac cgtgctgctg atctccttgt 180
tgacttcttt gagaagtgca agcttgaccc aaccactgg gaaacaatct caaaggctgg 240
tctccagcgt attgaagaga agtacacatg gcaaatttac tcacagaggc ttctcactct 300
cactgggtgtc tatggcttct ggaagcatgt gtctaaccct ga 342

<210> 2350
 <211> 305
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (52), (80), (97), (104), (239), (276)
 <223> unsure at all n locations

<400> 2350

gcactccaac atgttctgag gaaagctgag gagtatctgg gcacagtgcc tinctgaaact 60
 ccctactcag aatttgagcn caagttccag gagattngtt tggngagagg gtgggggtgac 120
 aacgcggagg tgtgccttga gtcaattcaa cttctcttgg atcttcttga ggcccctgac 180
 ccgtgcaccc ttgagacttt ccttggaaga atccctatgg tgttcaatgt tgttattcnt 240
 tctcccatg gttactttgc ccaagataat gtcttnggat accctgacac tgggtggccag 300
 gttgt 305

<210> 2351
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 2351

ctgttggaca gtacgaatct cacacagcct tcacccttcc tggactctac cgcgttgtgc 60
 atggtattga tgtctttgat ccaaaattca acattgtctc ccctggagct gatcaaacca 120
 tttacttccc ccacactgaa accagccgta ggttgacatc cttccaccct gaaatcgaag 180
 aactccttta cagctcagtg gagaatgaag aacacatatg tgtgctgaag gaccgcagca 240
 agccaattat cttcaccatg gcaagggttg atcgagt 277

<210> 2352
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 2352

caatgttgtt attctttctc cccatgggta ccctgcccac gataatgtct tgggataccc 60
 tgacactggg ggccagggtg tttacatctt ggatcaagtt cgtgctttgg agaattgagat 120

gctccatcgc attaagcaac aaggattgga cattgttcct cgtattctca ttatcacccg 180
tcttctcccc gatgcagtag gaactacttg tggccaacgt cttgagaagg tgttcggaac 240
tgagcaactcc cacattcttc gagttccctt tagaactg 278

<210> 2353
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2353

gccatgaacc acacagattt cattatcacc agtaccttcc aggagattgc tggaagcaag 60
gacactgttg gacagtacga atctcacaca gccttcaccc ttcttggaact ctaccgcgtt 120
gtgcatggta ttgatgtctt tgatccaaaa ttcaacattg tctcccctgg agctgatcaa 180
accatttact tccccacac tgaaaccagc cgtaggttga catccttcca ccctgaaatc 240
gaagaactcc tttacagctc agtggagaat gaa 273

<210> 2354
<211> 283
<212> nucleic acid
<213> Glycine max

<400> 2354

caaattcaac attgtctccc ctggagctga tcaaaccatt tacttcccc acactgaaac 60
cagccgtagg ttgacatcct tccaccctga aatcgaagaa ctcttttaca gctcagtgga 120
gaatgaagaa cacatatgtg tgctgaagga ccgcagcaag ccaattatct tcaccatggc 180
aaggttggat cgagtgaaga acatcacagg acttgtggag tggtaacgga agaacgcgaa 240
ctgagggagc tgggtgaacct tgtggttggt gctggagaca gga 283

<210> 2355
<211> 271
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (25), (47), (49)
<223> unsure at all n locations

<400> 2355
 ggcttttggg ttgacagtgg ttgangccat gacttgcggc ttgccancnt tcgccacatg 60
 caatgggtggg cctgctgaga tcattgtgca cggcaagtct ggcttccaca ttgaccctta 120
 ccatgggtgac cgtgctgctg atctccttgt tgacttcttt gagaagtgca agcttgaccc 180
 aactcactgg gacaagctct caaaggtggt tctccagcgt attgaagaga agtacacatg 240
 gcaaatttac tctcagaggc ttctcactct c 271

<210> 2356
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2356
 ctgaaatcga agaactcctt tacagctcag tggagaatga agaacacata tgtgtgctga 60
 aggaccgcag caagccaatt atcttcacca tggcaagggt ggatcgagtg aagaacatca 120
 caggacttgt ggagtgggtac ggtaagaacg cgaactgagg gagctgggtga accttgtggt 180
 tgttgctgga gacaggagga aggagtcaaa ggacttggaa gaaaaggccg agatgaagaa 240
 gatgtacggc ctgatcgaga cctacaagtt gaa 273

<210> 2357
 <211> 278
 <212> nucleic acid
 <213> Glycine max

<400> 2357
 atcaaaccat ttacttcccc cacactgaaa ccagccgtag gttgacatcc ttccaccctg 60
 aaatcgaaga actcctttac agctcagtgg agaatagaaga acacatatgt gtgctgaagg 120
 accgcagcaa gcccaattatc ttgccatgg caagggttga tcgagtgaag aacatcacag 180
 gacttgtgga gtggtacggg aagaacgcga agctgagggg gctggtgaac cttgtgggtg 240
 ttgctggaga caggaggaag gagtcaaagg acttggaa 278

<210> 2358
 <211> 325
 <212> nucleic acid
 <213> Glycine max

<400> 2358
 aggagtcgaa ggacttggaa gagaaggccg agatgaagaa gatgtatggc ctcatcgaga 60
 cctacaagtt gaacggccaa ttcagatgga tatcctctca gatgaaccgt gtgaggaacg 120
 gagagctcta ccgtgtcatc tgtgacacaa ggggtgcctt tgtgcagcct gcagtttatg 180
 aggcccttgg gttgactgtg gttgaggcca tgacttgtgg gttgccaacg tttgccacat 240
 gcaatggtgg tcctgctgag atcattgtgc atggaaaatc tggttaccac attgatcctt 300
 accatggtga ccatgctgct gagat 325

<210> 2359
 <211> 274
 <212> nucleic acid
 <213> Glycine max

<400> 2359
 ggccatactt ggaaacttac actgaggatg ttgctcatga gcttgccaaa gagttgcaag 60
 gcaagccaga tctgattgtc ggaaactaca gtgatggaaa cattgttgcc tctttgttgg 120
 cacataaatt aggagtcact caggtaccat tgctcatgca cttgagaaga ccaaataccc 180
 cgaatccgac atttactgga aaaaattgga agagagatac cacttctctt gccaatcac 240
 agctgatcta tttgccatga accacacaga tttc 274

<210> 2360
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2360
 gccaatcag atggatttca tcgcagatga accgtgtgag gaatggagag ctctaccgcg 60
 tgatctgca caccaggggt gctttcgtgc agcctgctgt atacgaggct tttggtttga 120
 cagtggttga ggccatgact tgcggcttgc caacattcgc cacatgcaat ggtggctcctg 180
 ctgagatcat tgtgcacggc aagtctggct tccacattga ccctaccatg gtgaccgtgc 240
 tgctgatctc ctgttgactt ctttgagaag tgcaag 276

<210> 2361
 <211> 267
 <212> nucleic acid

<213> Glycine max

<400> 2361

ccgatgcagt aggaactact tgtggccaac gtcttgagaa ggtgttcgga actgagcact 60
cccacattct tcgagttcgc tttagaactg agaagggaat tggtcgcaag tggatctcaa 120
gattcgaagt ctggccctac ttggaaaactt aactgagga tggtgcccac gagcttgcca 180
aagagttgca aggcaagcca gatctgattg ttggaaaacta cagtgatgga aacattgtcg 240
cttctttgtt ggcacataaa ttaggtg 267

<210> 2362

<211> 263

<212> nucleic acid

<213> Glycine max

<400> 2362

ccaagatgta aacaacctgg atcaagttcg tgctttggag aatgagatgc tccatcgcat 60
taagcaacaa ggattggaca ttgttcctcg tattctcatt atcacccgctc ttctccccga 120
tgcagtagga actacttggt gccaacgtct tgagaagggtg ttcggaactg agcactccca 180
cattcttcga gttcccttta gaactgagaa gggaattgtt cgcaagtgga tctcaagatt 240
cgaagtctgg ccctacttgg aaa 263

<210> 2363

<211> 265

<212> nucleic acid

<213> Glycine max

<400> 2363

actcagtgtg ccattgctca cgcacttgag aagaccaa atccccgaatc cgacatttac 60
tggaaaaaat tggaagagag ataccacttc tcttgccaat tcacagctga tctatttgcc 120
atgaaccaca cagatttcat tacaagcagt accttccagg agattgctgg aagcaaggac 180
actgttggac agtacgaatc tcacacagcc ttcacccttc ctggactcta ccgcgttggtg 240
catggtattg atgtctttga tccaa 265

<210> 2364

<211> 328

<212> nucleic acid

<213> Glycine max

<400> 2364

gctcaaccgc atcaagaaac aaggccttga tatcaccctt cgtattctca ttattactcg 60
tcttctccct gatgcagtag gaactacctg tggccaacgt ctagagaggg tatatgatac 120
tgaatattgt gacattctcc gagttccttt cagaaccgaa aaggggaattg ttcgcaaattg 180
gatctcaaga ttcgaagtct ggccatacct agagacttac actgaggatg ttgcccttga 240
acttgccaag gagttgcaag ccaagccaga tctgatcggt ggaaactaca gtgatggaaa 300
cattgttgcc tctttgtag cacataaa 328

<210> 2365

<211> 340

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (81), (304), (334)

<223> unsure at all n locations

<400> 2365

ccatggttga ggccatgact tgcggcttgc caacattcgc cacatgcaat ggtggtcctg 60
ctgagatcat tgtgcacggc nagtctggt tccacattga cccttaccat ggtgaccgtg 120
ctgctgatct cctgttgact tctttgagaa gtgcaagctt gacccaactc actgggacaa 180
gatctcaaag gctggtctcc agcgtattga agagaagtac acatggcaaa ttactctca 240
gaggttctca tctcaacggt gtctatgggt ctggaagcat gtgtctaact tgaacgcgtg 300
agancgcgta tctgagagtc tagtctcagt acgnaatggt 340

<210> 2366

<211> 273

<212> nucleic acid

<213> Glycine max

<400> 2366

catgagcttg ccaaagagtt gcaaggcaag ccagatctga ttgtcggaaa ctacagtgat 60
ggaaacattg ttgcctcttt gttggctcat aaattaggag tcactcagtg taccattgct 120
catgcacttg agaagaccaa ataccccgaa tccgacattt actggaaaaa attggaagag 180

agataccact tctcttgcca attcacagct gatctatctg ccatgaacca cacagatttc 240
attatcacca gtaccttcca ggagattgct gga 273

<210> 2367
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2367

gtggtacggt aagaacgcca actgagggag ctggtgaacc ttgtggttgt tgctggagac 60
aggaggaagg agtcaaagga cttggaagaa aaggccgaga tgaagaagat gtacggcctg 120
atcgagacct acaagttgaa cggccaattc agatggattt catcgagat gaaccgtgtg 180
aggaatggag agctctaccg cgtgatctgc gacaccaggg gtgctttcgt gcagcctgct 240
gtatacgagg ctttttggtt ga 262

<210> 2368
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2368

gtggtacggt aagaacgcca agctgagggg gctggtgaac cttgtggttg ttgctggaga 60
caggaggaag gagtcaaagg acttgaaga aaaggccgag atgaagaaga tgtacggcct 120
gatcgagacc tacaagttga acggccaatt cagatggatt tcatcgaga tgaaccgtgt 180
gaggaatgga gagctctacc gcgtgatctg cgacaccagg ggtgctttcg tgcagcctgc 240
tgtatacgag gcttttggtt tga 263

<210> 2369
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2369

ctggaaaata ttggaagaga gataccactt ctcttgccaa ttcacagctg atctatctgc 60
catgaaccac acagatttca ttatcaccag taccttcag gagattgctg gaagcaagga 120
cactgttgga cagtacgaat ctacacagc cttcaccctt cctggactct accgcgttgt 180

gcatggtatt gatgtctttg atccaaaatt caacattgtc tcccctggag ctgatcaaac 240
catttacttc cccca 255

<210> 2370
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 2370

cttgaagaa aaggccgaga tgaagaagat gtacggcctg atcgagacct acaagttgaa 60
cggccaattc agatggattt catcgagat gaaccgtgtg aggaatggag agctctaccg 120
cgtgatctgc gacaccaggg gtgctttcgt gcagcctgct gtatacgagg cttttggttt 180
gacagtgggtt gaggccatga cttgcggctt gccaacattc gccacatgca atggtgggtcc 240
tgctgagatc a 251

<210> 2371
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2371

ccgtcttctc cccgctgcag taggaactac ttgtggccaa cgtcttgaga aggtgttcgg 60
aactgagcac tcccacattc ttogagttcc ctttagaact gagaagggaa ttgttcgcaa 120
gtggatctca agattcgaag tctggcccta cttggaaaact tacactgagg atgttgccca 180
cgagcttgcc aaagagttga aggcaagcca gatctgattg ttggaaaact cagtgatgga 240
aacattgtcg cttctttggtt gg 262

<210> 2372
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2372

cttgaggccc ctgacccttg cacccttgag actttccttg gaagaattcc tatggtcttc 60
aatgttgtca ttctttctcc ccatggttac tttgccaag ataatgtctt gggccaccct 120
gacactgggtg gccaggttgt ttacatcttg gatcaagttc gtgctttgga gaacgagatg 180

ctccatcgca ttaagcaaca aggattggac attgtacctc gtattctcat tatcacgctc 240
 ttctccccga tgcaatcgga actacttggt gccaacg 277

<210> 2373
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2373

tggaatggag agctctaccg cgtgatctgc gacaccaggg gtgctttcgt gcagcctgct 60
 gtatacgagg cttttgggtt gacagtgggt gaggccatga cttgcggctt gccaacattc 120
 gccacatgca atggtggtcc tgctgagatc attgtgcacg gcaagtctgg cctccacatt 180
 gacgcttacc atggtgaccg tgctgctgat ctccttggtg acttctttga gaagtgcacg 240
 cttgacccaa ctcac 255

<210> 2374
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 2374

ggagagctgt accgtgtgat ctgcgacacc aaggagctt tcgtgcagcc ggctatatac 60
 gaggcttttg gtttgacagt ggttgaggcc atgacttggt gggtgccaac attcgccaca 120
 tgcaatggtg gtcttctga gatcattgtg catggcaagt ctggcttcca cattgaccct 180
 taccatggtg accgtgctgc tgatctcctt gttgacttct ttgagaagtg caagcttgac 240
 ccaaccact gggaacaac ctcaaaggc 269

<210> 2375
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2375

tggggtgaca acgcagagcg tgttcttgag tcaattcaac ttctcttga tcttcttgag 60
 gccctgacc cttgcacct tgagactttc cttggaagaa ttcctatggt cttcaatggt 120
 gtcattcttt ctcccatgg ttactttgcc caagataatg tcttgggata ccctgacact 180

atctatattgc catgaaccac acagatttca ttatcaccag taccttccag ggattgctgg 240
aagcaaggac actggttgac agtacgaatc tcac 274

<210> 2385
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2385

tcgaagaact cctttacagc tcagtggaga atgaagaaca catatgtgtg ctgaaagacc 60
gcagcaagcc aattatcttc accatggcaa ggttgatcg agtgaagaac atcacaggac 120
ttgtggagtgt gtacggtaag aacgcgaact gagggagctg gtgaaccttg tggttgttgc 180
tggagacagg aggaaggagt caaaggactt ggaagaaaag gccgagatga agaagatgta 240
cggcctgatc gaga 254

<210> 2386
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2386

aaagactttg atgttgaatg acagaattca aaaccagat gcactccaac atgttctgag 60
gaaagctgag gagtatctgg gcacagtgcc tctgaaact ccctactcag aatttgagca 120
caagttccag gagattggtt tggagagagg gtgggggtgac aacgcagagc gtgttcttga 180
gtcaattcaa cttctcttgg atcttcttga ggccccctgac ccttgacccc ttgagacttt 240
ccttgaag 249

<210> 2387
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2387

caaaattcaa cattgtctcc cctggagctg atcaaaccat ttacttcccc cacactgaaa 60
ccagccgtag gttgacatcc ttccaccctg aaatcgaaga actcctttac agctcagtgg 120
agaatgaaga acacatatgt gtgctgaagg accgcagcaa gccaatatc ttcaccatgg 180

caaggttggg tgcagtgaag aacatcacag gacttgtgga gtggtacggt aagaacgcga 240
actgagggag ctg 253

<210> 2388
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 2388

gggaattggt cgcaagtgga totcaagatt cgaagtctgg ccctacttgg aaacttacac 60
tgaggatggt gccacgagc ttgccaaaga gttgcaaggc aagccagatc tgattgttgg 120
aaactacagt gatggaaaca ttgtcgcttc tttgttggca cataaattag gtgtcactca 180
gtgtaccatt gctcacgcac ttgagaagac caaatacccc gaatccgaca tttactggaa 240
aa 242

<210> 2389
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 2389

gttgcaaggc aagccagatc tgattgttgg aaactacagt gatggaaaca ttgtcgcttc 60
tttgttggca cataaattag gtgtcactca gtgtaccatt gctcacgcac ttgagaagac 120
caaatacccc gaatccgaca tttactggaa aaaattggaa gagagatacc acttctcttg 180
ccaattcaca gctgatctat ttgccatgaa ccacacagat ttcattatca ccag 234

<210> 2390
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2390

accgcgttgt gcatggtatt gatgtctttg atccaaaatt caacattgtc tcccctggag 60
ctgatcaaac catttacttc cccacactg aaaccagccg taggttgaca tccttccacc 120
ctgaaatcga agaactcctt tacagctcag tggagaatga agaacacata tgtgtgctga 180
aggaccgcag caagccaatt atcttcacca tggcaagggt ggatcgagtg aagaacatc 239

<210> 2391
 <211> 267
 <212> nucleic acid
 <213> Glycine max

 <400> 2391

 attctccccg atgcaatcgg aactacttgt ggccaacgtc ttgagaaggt gttcgggaacc 60
 gagcactccc acattcttcg agttcccttt agaactgaga aggggaattgt tcgtcagtgg 120
 atctcaagat tcgaagtctg gccatacttg gaaacttaca ctgaggatgt tgctcatgag 180
 cttgccaaaag agttgcaagg caagccagat ctgattgtcg gaaactacag tgatggaaac 240
 attgatgcct ctttgttggc acataaa 267

<210> 2392
 <211> 270
 <212> nucleic acid
 <213> Glycine max

 <400> 2392

 cgtagtagct cggaatcgtc cgagctcgag cggatgtctt tgatccaaaa ttcaacattg 60
 tctcccctgg agctgatcaa accatttact tccccacac tgaaaccagc cgtaggttga 120
 catccttcca cctgaaatc gaagaactcc ttacagctc agtggagaat gaagaacaca 180
 tatgtgtgct gaaggaccgc agcaagccaa ttatcttcac catggcaagg ttggaccgag 240
 tgaagaacat cacaggactt gtggagtgg 270

<210> 2393
 <211> 284
 <212> nucleic acid
 <213> Glycine max

 <400> 2393

 acaggaggaa ggagtccaag gacttgaag agaaggccga gatgaagaag atgtatggcc 60
 tcatcgagac ctacaagttg aacggccaat tcagatggat ctctctcag atgaaccgtg 120
 tgaggaacgg agagctctac cgtgtcatct gtgacacaag ggggtgccttt gtgcagcctg 180
 cagtttatga ggcccttggg ttgactgtgg ttgaggccat gacttgtggg ttaccaacat 240
 ttgccacatg caatgggtgg cctgctgaga tcattgtgca tgga 284

<210> 2394
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2394

cgcggttgatg atgggtattga tgtctttgat ccaaaattca acattgtctc ccctggagct 60
 gatcaaacca ttacttccc ccacactgaa accagccgta gggtgacatc cttccaccct 120
 gaaatcgaag aactccttta cactcagtgg agaatagaaga acacatatgt gtgctgaagg 180
 accgcagcaa gcccaattatc ttcacccatgg caaggttgga tcgagtgaag aacatcacag 240
 gacttgt 247

<210> 2395
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (70)
 <223>

<400> 2395

agagatacca cttctctcgc caattcacag ctgatctatt tgccatgaac cacacagatt 60
 tcattatcan cagtaccttc caggagattg ctggaagcaa ggacactgtt ggacagtacg 120
 aatctcacac agcctcacc ttcttggaact ctaccgcgtt gtgcatggta ttgatgtctt 180
 tgatccaaaa ttcaacattg tctcccctgg agctgatcaa accatttact tccccacac 240
 tgaaacc 247

<210> 2396
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2396

gggtgacctc cttccacccc gaaatcgaag aacttcttta cagctctgtg gagaatgaag 60
 aacacatatg cgtgctgaag gaccgcagca agccgattat cttcaccatg gcaaggttg 120

agataccact tctcttgcca attcacagct gatctatttg ccatgaacca cacagatttc 240
att 243

<210> 2400
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2400

cgagatgctc catcgatta agcaacaagg attggacatt gtacctcgta ttctcattat 60
caccggtctt ctccccgatg caatcggaac tacttggtggc caacgtcttg agaagggtgtt 120
cggaaccgag cactcccaca ttcttcgagt tccctttaga actgagaagg gaattgttcg 180
tcagtggatc tcaagattcg aagtctggcc atacttgga aattacactg aggatgttgc 240
tcatgagctt gccaaag 257

<210> 2401
<211> 286
<212> nucleic acid
<213> Glycine max

<400> 2401

atgtgtattg aaggaccgca acaagccgat catcttcacc atggcaagac ttgaccgtgt 60
gaagaacatc acgggacttg tggagtggta tggcaagaat gcgcgcctcc gcgagttggt 120
aaacctcgtg gtggtggccg gagacaggag gaaggagtcc aaggacttgg aagagaaggc 180
cgagatgaag aagatgtatg gcctcatcga gacctacaag ttgaacggcc aattcagatg 240
gatctcctct cagatgaacc gtgtgaggaa cggagagctc taccgt 286

<210> 2402
<211> 275
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (25)
<223>

<400> 2402

cctccttcca ccccgaaatc gaagncaatt ctttacagct ctgtggagaa tgaagaacac 60

cgtgcttttg agaacgagat gctccatcgc attaagcaac aaggattgga cattgtacct 120
cgtattctca ttatcaccgc tcttctcccc gatgcaatcg gtactacttg tggccaacgt 180
cttgagaagg tgttcggaac cgagcactcc cacattcttc gagttctctt tagaactgag 240
aagggaattg t 251

<210> 2406
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2406

ggtgggggtga caacgcagag cgtgttcttg agtcaattca acttctcttg gatcttcttg 60
aggccccctga cccttgcaac cttgagactt tccttggaag aattcctatg gtcttcaatg 120
ttgtcattct ttctcccat gggtactttg cccaagataa tgtcttgga taccctgaca 180
ctgggtggcca gggtgtttac atcttgatc aagttcgtgc tttggagaac gagatgctcc 240
atcgcac 247

<210> 2407
<211> 282
<212> nucleic acid
<213> Glycine max

<400> 2407

tgagaggggg tggggtgaca ctgccgagcg tgcctcgag atgatccagc ttctcctgga 60
ccttcttgag gcacctgacc cttgcaccct cgagacattc cttggaagag tccctatggt 120
cttcaatggt gttatcctt ctcccatgg ttactttgcc caagataatg tcttgggata 180
ccctgacact ggtggacagg ttgtttacat cttggatcaa gttcgtgcct tggagaatga 240
gatgctcaac cgcacaaaga aacaaggcct tgatatcacc cc 282

<210> 2408
<211> 309
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (13), (21), (68), (138), (140), (151), (222), (257), (294)

[illegible]

catcactgta	gtntccaaca	ntcagatctg	gaaacattgt	tgctctttg	ttagcacata	60
aattaggngt	aactcagtgt	accattgctc	atgctctaga	aaagaccaag	taccctgagt	120
ctgacattta	ctggaaanan	tttgaagaga	natatcattt	ctcatgccaa	tttactgctg	180
atctttttgc	aatgaaccac	acagacttta	tcatcaccag	cnccttccaa	gagattgctg	240
gaagcaagga	cactgtngga	cagtatgaga	gtcacactgc	cttcaccctt	ccangacttt	300
accgtgttg						309

<400>	2409	
ctggactcta	ccgtgttgtg	cacggcattg atgtctttga tccaaaattc aacattgtct 60
cccctggagc	tgatcaaacc	atttacttcc cccccaccga aactagccgt aggttgacct 120
ccttccaccc	cgaaatcgaa	gaacttcttt acagctctgt ggagaatgaa gaacacatat 180
gcgtgctgaa	ggaccgcagc	aagccgatta tcttcaccat ggcaagggtg gaccgtgtga 240
agaacatcac	a	251

<400>	2410					
cacagatttc	attatcacca	gtaccttcca	ggagattgct	ggaagcaagg	acactggttg	60
acagtatgag	tctcacacag	cctttaccct	tcctggactc	taccgtggtg	tgcacggcat	120
tgatgtcttt	gatccaaaat	tcaacattgt	ctccctggga	gctgatcaaa	ccatttactt	180
ccccccacc	gaaactagcc	gtaggttgac	ctccttcac	cccgaaatcg	aagaacttct	240
ttacagct						248

843

<211> 250
 <212> nucleic acid
 <213> Glycine max

 <400> 2411

 tggagacagg aggaaggagt caaaggactt ggaagaaaag gccgagatga agaagatgta 60
 cggcctgata gagacctaca agttgaacgg ccaattcaga tggatttcat cgcagatgaa 120
 ccgtgtgagg atggagagct ctaccgcgtg atctgcgaca ccaggggtgc tttcgtgcag 180
 cctgctgtat acgaggcttt tggtttgaca gtggttgagg ccatgacttg cggttgcca 240
 acattcgcca 250

<210> 2412
 <211> 253
 <212> nucleic acid
 <213> Glycine max

 <400> 2412

 caaaaccag atgcactcca acatgttctg aggaaagctg aggagtatct gggcacagtg 60
 cctcctgaaa ctccctactc agaatttgag gacaagttcc aggagattgg tttggcgaga 120
 gggcggggtg acaagcagag cgtgttcttg agtcaattca acttctcttg gatcttcttg 180
 aggccctga cccttgacc cttgagactt tccttggaag aattcctatg gtcttcaatg 240
 ttgtcattct ttc 253

<210> 2413
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2413

 cagatctgat tgttggaac tacagtgatg gaaacattgt cgcttctttg ttggcacata 60
 aattaggtgt cactcagtgt accattgctc acgcacttga gaagacaaa taccctgaat 120
 ccgacattta ctggaaaata ttggaagaga gataccactt ctcttgccaa tccccgctg 180
 atctatttgc catgaaccac acagatttca ttatcaccag taccttcag gagattg 237

<210> 2414
 <211> 264
 <212> nucleic acid

<213> Glycine max

<400> 2414

tagcaatgac actggttgac agtatgagtc tgacacagcc tttacccttc ctggactcta 60
ccgtgttggtg cacggcattg atgtctttga tccaaaattc aacattgtct ccccgagct 120
gatcaaacca tttacttccc cccacccgaa actagccgta ggttgacctc cttccacccc 180
gaaatcgaag aacttcttta cagctctgtg gagaatgaag aacacatatg cgtgctgaag 240
gaccgcagca agccgattat cttc 264

<210> 2415

<211> 246

<212> nucleic acid

<213> Glycine max

<400> 2415

gaagaacaca tatgcgtgct gaaggaccgc agcaagccga ttatcttcac catggcaagg 60
ttggaccgtg tgaagaacat cacaggactc gtggagtggc acggttaagaa cgcgaactga 120
gggagttggt gaaccttggt gttgttgccg gagacaggag gaaggagtcg aaggacttgg 180
aagagaaggc cgagatgaag aagatgtacg gcctgatcga gacctacaag ttgaacgggc 240
aattca 246

<210> 2416

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 2416

ttcacagctg atctatttgc catgaaccac acagatttca ttattaccag taccttccag 60
gagattgctg gaagcaagga cactgttgga cagtatgagt ctacacagc ctttaccctt 120
cctggactct accgtgttgt gcacggcatt gatgtctttg atccaaaatt caacattgtc 180
tcccctggag ctgatcaaac catttacttc cccccaccg aaactagccg taggttgacc 240
tccttcc 247

<210> 2417

<211> 257

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (59)

<223>

<400> 2417

gccatgaacc acacagattt cattatcacc agtaccttcc aggagattgc tggaagcang 60

gacactgttg gacagtatga gtctcacaca gcctttaccc ttcttggtact ctaccgtgtt 120

gtgcaaggca ttgatgtctt tgatccaaaa ttcaacattg tctcccttgg agctgatcaa 180

accatttact tccccccac cgaaactagc cgtagttgac ctcttccac cccgaaatcg 240

aagaacttct ttacagc 257

<210> 2418

<211> 247

<212> nucleic acid

<213> Glycine max

<400> 2418

cggcactgat gtctttgatc caaaattcaa cattgtatcc cctggagctg atcaaaccat 60

ttacttcccc cccaccgaaa ctagccgtag gttgacctcc ttccaccccg aaatcgaaca 120

acttctttac agctctgttg agaatgaaga acacatatgc gtgctgaagg accgcagcaa 180

gccgattatc ttaccatgg caaggttgga ccgtgtgaac gacatcacag gactcgtgga 240

gtggtac 247

<210> 2419

<211> 267

<212> nucleic acid

<213> Glycine max

<400> 2419

gccaaattcag atggatatcc tctcagatga accgtgtgag gaacggagag ctctaccgtg 60

tcattctgtga cacaaggggt gcctttgtgc agcctgcagt ttatgaggcc tttgggttga 120

ctgtgggttga ggccatgact tgtgggttgc caacgtttgc cacatgcaat ggtgggtcctg 180

ctgagatcat tgtgcatgga aaatctgggt accacattga tccttaccat ggtgaccatg 240

ctgctgagat ccttggtgag ttctttg 267

<210> 2420
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 2420
 gtgacaacgc agagcgtggt cttgagtgcaa ttcaacttct cttggatctt cttgaggccc 60
 ctgacccttg cacccttgag actttccttg gaagaattcc tatggtcttc aatgttgtca 120
 ttctttctcc ccatgggttac ttgcccag ataatgtctt gggataccct gacactggtg 180
 gccaggttgt ttacatcttg gatcaagttc gtgctttgga gaacgagat 229

<210> 2421
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2421
 gtcaaaggac ttggaagaaa aggccgagat gaagaagatg tacggcctga tcgagaccta 60
 caagttgaac ggccaattca gatggatttc atcgcatg aaccgtgtga ggaatggaga 120
 gctctaccgc gtgatctgcg acaccagggg tgctttcgtg cagcctgctg tatacgagggc 180
 ttttggtttg acagtgggtg aggccatgac ttgcggcttg ccaagattcg ccacatgcaa 240
 tgtgggtcct gctgagatca ttgtg 265

<210> 2422
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2422
 ggaagagaga taccacttct cttgccatt cacagctgat ctatttgcca tgaaccacac 60
 agatttcatt atcaccagta ccttccagga gattgctgga agcaaggaca ctgttgga 120
 gtacgaatct cacacagcct tcaccttcc tggactctac cgcgttgtgc atggatttga 180
 tgtctttgat ccaaaattca acattggctc ccctggagct gatcatacca ttaacttccc 240
 ccacactgaa 250

<210> 2423
 <211> 237
 <212> nucleic acid
 <213> Glycine max

<400> 2423
 ataccacttc tcttgccaat tcacagctga tctatttgcc atgaaccaca cagatttcat 60
 tatcaccagt accttccagg agattgctgg aagcaaggac actggttgac agtatgagtc 120
 tcacacagcc tttacccttc ctggactcta ccgtgttggtg caccggcattg atgtctttga 180
 tccaaaattc aacattgtct ccctggagc tgatcaaacc atttacttcc ccccccac 237

<210> 2424
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 2424
 gcgtgctgaa ggaccgcagc aagccgatta tcttcacat ggcaagggtg gaccgtgtga 60
 agaacatcac aggactcgtg gagtggcacg gtaagaacgc gaactgaggg agttgggtgaa 120
 ccttggtggtt gttgccggag acaggaggaa ggagtcgaag gacttggaag agaaggccga 180
 gatgaagaag atgtacggcc tgatcgagac ctacaagttg aacgggcaat tcagatggat 240
 ttcattctcag atgaaccgtg tgaggaacgg agagctgtac cg 282

<210> 2425
 <211> 313
 <212> nucleic acid
 <213> Glycine max

<400> 2425
 gtacgtaagt tcgggtctacg gctcgttcag catcgacatc ctctcacatg aactgtgtga 60
 cgaacggaga gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag 120
 tttatgaggc ctttggttac actgtggttg aggccatgac ttgtgggttg ccaacgtttg 180
 ccacatgcaa tgggtgtcct gctgagatca ttgtgcatgg aaaatctggt taccacattg 240
 atccttacca tggtgaccat gctgctgaga tccttggtga gttctttgag aagagcaagg 300
 ctgatccatc tca 313

<210> 2426
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2426
 gagaatgagg aacacatatg cgtattgaag gaccgcaaca aaccaataat cttcaccatg 60
 gcaaggcttg accgtgtgaa gaacatcacg gggcttgctg agtgggtacgg gaagaacgca 120
 cgcctccgag agttgggtgaa cctgggtggg gtggctggag acaggaggaa ggagtcgaag 180
 gacttggaag agaaggccga gatgaagaag atgtatggcc tcacgagac ctacaagttg 240
 aacggccaat tcagatggat atcctctcag a 271

<210> 2427
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2427
 aaaccattta cttccccccc accgaaacta gccgtagggt gacctccttc cccccgaaa 60
 tcgaagaact tctttacagc tctgtggaga atgaagaaca catatgcgtg ctgaaggacc 120
 gcagcaagcc gcttatcttc accatggcaa ggttgaccg tgtgaagaac atcacaggac 180
 tcgtggagtg gtacggtaag aacgcgaact cgaggaggtt ggtgaacctt gtggttggtg 240
 ccggagacag gaggaagg 258

<210> 2428
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 2428
 tacaagttga acggccaatt cagatggata tcctctcaga tgaaccgtgt gaggaacgga 60
 gagctctacc gtgtcatctt cgacacaagg ggtgcctttg tgcagcctgc agtttatgag 120
 gcctttgggt tgactgtggt tgacgccatg acttgtgggt tgccaacgtt tgccacatgc 180
 aatgggtggtc ctgctgagat cattgtgcat ggaaaatctg gttaccacat tgatccttac 240
 catggtgacc atgctgctga gat 263

<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (144)
<223>

<400> 2432

gcctgagtct gacatttact ggaaaaaatt tgaagagaaa tatcatttct catgccaatt 60
tactgctgat ctttttgcaa tgaaccacac agactttatc atcaccagca ccttccaaga 120
gattgctgga agcaaggaca ctgntggaca gtatgagagt cacactgcct tcacccttcc 180
aggactttac cgtgttggtc acggtattga tccatttgat ccaaagttca acattgtctc 240
tcccgggtgca gacatgggta tataacttccc atacac 276

<210> 2433
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2433

tcgagaccta caagttgaac ggccaattca gatggatatc ctctcagatg aaccgtgtga 60
ggaacggaga gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag 120
tttatgaggc ctttggggtg actgtgggtg aggccatgac gtgtggggtg ccaacgtttg 180
ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt taccacattg 240
atccttacca tggtgaccat gctgctga 268

<210> 2434
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2434

gcgtattgaa ggaccgcaac aaaccaataa tcttcacat ggcaaggctt gaccgtgtga 60
agaacatcac ggggcttgct gagggtcgg gaagaacgca cgcctccgcg agttggtgaa 120
cctggtggtg gtggctggag acaggaggaa ggcgtcgaag gacttgaag agaaggccga 180
gatgaagaag atgtatggcc tcatcgagac ctacaagttg aacggccaat tcagatggat 240

atcctctcag atgaaccgtg tgaggaacgg agagctcta 279

<210> 2435
<211> 222
<212> nucleic acid
<213> Glycine max

<400> 2435

cggtgtttac atcttggatc acgttcgtgc tttggagatt gagatgctcc atcgcatata 60
gcaacaagga ttggacattg ttcctcgtat tctcattatc acccgtcttc tccccgatgc 120
agtaggaact acttgtggcc aacgtcttga gaaggtgttc ggaactgagc actcccacat 180
tcttcgagtt cccttttagaa ctgagaaggg aattgttcgc aa 222

<210> 2436
<211> 259
<212> nucleic acid
<213> Glycine max

<400> 2436

atggatctca agattcgaag tctggccata cctagagact tacactgagg atgtcgccct 60
ggaacttgcc aaggagttgc aagccaagcc agatctgatt gttggaaact acagtgatgg 120
aaacattggt gcctctttgt tagcacataa attaggagta actcagtgtg ccattgctca 180
tgctctagaa aagaccaagt accctgagtc tgacatttac tggaaaaaat ttgaagagaa 240
atatcatttc tcatgcaa 259

<210> 2437
<211> 251
<212> nucleic acid
<213> Glycine max

<400> 2437

gtccaaggac ttggaagaga aggccgagat gaagaagatg tatggcctca tcgagaccta 60
caagttgaac ggccaattca gatggatctc ctctcagatg aaccgtgtga ggaacggaga 120
gctctaccgt gtcattctgtg acacaagggg tgcctttgtg cagcctgcag tttatgaggc 180
ctttgggttg actgtggttg aggccatgac ttgtgggtta ccaacatttg ccacatgcaa 240
tggtggctct g 251

<210> 2438
 <211> 253
 <212> nucleic acid
 <213> Glycine max

 <400> 2438

 ggagagctgt accgtgtgat ctgcgacacc aatggagctt tcgtgcagcc ggctatatac 60
 gaggcttttg gcttgacact ggttgaagcc atgacttgta ggttgccaac attcgccaca 120
 tgcaatggtg gtcttctga gatcatttg catggcaagt ctggcttcca cattgaccct 180
 taccatggtg accgtgctgc ggatctccct gctgacttct ttgagaagtg caagcttgac 240
 ccaaccact ggg 253

<210> 2439
 <211> 229
 <212> nucleic acid
 <213> Glycine max

 <400> 2439

 cccatggtta ctttgcccaa gataatgtct tgggataccc tgacactggt ggccaggttg 60
 ttacatctt ggatcaagtt cgtgctttgg agaacgagat gctccatcgc attaagcaac 120
 aaggattgga cattgtacct cgtattctca ttatcaccgc tcttctcccc gatgcaatcg 180
 gaactacttg tggccaacgt cttgagaagg tgttcggaac cgagcactc 229

<210> 2440
 <211> 260
 <212> nucleic acid
 <213> Glycine max

 <400> 2440

 gccgagatga agaagatgta tggcctcatc gagacctaca agttgaacgg ccaattcaga 60
 tggatatcct ctcatatgaa ccgtgtgagg aacggagagc tctaccgtgt catctgtgac 120
 acaaggggtg cctttgtgca gcctgcagtt tatgaggcct ttgggttgac tgtggttgag 180
 gccatgactt gtgggttgcc aacgtttgcc acatgcaatg gtggctcctgc tgagatcatt 240
 gtgcatggaa aatctggtta 260

<210> 2441

<211> 250
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (189)
 <223>

<400> 2441

tggaaacatt gttgcctctt tgttggcaca taaattagga gtcactcagt gtaccattgc 60
 tcatgcactt gagaagacca aataccccga atccgacatt tactggaaaa aattggaaga 120
 gagataccac ttctcttgcc aattcacagc tgatctatct gccatgaacc acacagattt 180
 catcacaanc agtaccttcc aggagattgc tggactgcag gacactgttg gacagtatga 240
 gtctcacaca 250

<210> 2442
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2442

gcttctttac agctcagtgg agaattgagga acacatatgc gtattgaagg accgcaacaa 60
 accaataatc ttcaccatgg caaggcttga ccgtgtgaag aacatcacgg ggcttgtcga 120
 gtggtacggg aagaacgcac gcctccgcga gttggtgaac ctggtggtgg tggctggaga 180
 caggaggaag gagtcgaagg acttgggaaga gaaggccgag atgaagaaga tgtatggcct 240
 catcgagacc tacaagttg 259

<210> 2443
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 2443

aaggacttgg aagagaaggc cgagatgaag aagatgtatg gcctcatcga gacctacaag 60
 ttgaacggcc aattcagatg gatctcctct cagatgaacc gtgtgaggaa cggagagctc 120
 taccgtgtca tctgtgacac aaggggtgcc tttgtgcagc ctgcagttta tgaggccttt 180
 gggttgactg tggttgaggc catgacttgt gggttaccaa catttgccac atgcaatggt 240

ggtc

244

<210> 2444
<211> 220
<212> nucleic acid
<213> Glycine max

<400> 2444

ccccacact gaaaccagcc gtaggttgac atccttccac cctgaaatcg aagaactcct 60
ttacagctca gtggagaatg aagaacacat atgtgtgctg aaggaccgca gcaagccaat 120
tatcttcacc atggcaaggt tggatcgagt gaagaacatc acaggacttg tggagtggta 180
cggtaaagacc gcgaactgga gggacctgga aaaccttggg 220

<210> 2445
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 2445

caagtaccct gagtctgaca ttacttgaa aaaatttgaa gagaaatc atttctcatg 60
ccaatttact gctgatcttt ttgcaatgaa ccacacagac ttatcatca ccagcacctt 120
ccaagagatt gctggaagca aggacactgt tggacagtat gagagtcaca ctgccttcac 180
ccttccagga ctttaccgtg ttgttcacgg tattgatcca ttgatccaa agttcaacat 240
tgtctctc 248

<210> 2446
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2446

cacggggctt gtcgagtggc acgggaagaa cgcacgcctc cgcgagttgg tgaacctggt 60
ggtggtggct ggagacagga ggaaggagtc gaaggacttg gaagagaagg ccgagatgaa 120
gaagatgtat ggctcatcg agacctacaa gttgaacggc caattcagat ggatattcctc 180
tcagatgaac cgtgtgagga acggagagct ctaccgtgtc atctgtgaca caaggggtgc 240
tcctgtgcag cctgcagttt at 262

<210> 2447
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2447
 gaacttgcca aggagttgca agccaagcca gatctgattg ttggaaacta caatgatgga 60
 aacattgttg cctctttgtt agcacataaa ttaggagtaa ctcaagtgtac cattgctcat 120
 gctctagaaa agaccaagta ccctgagtct gacatttact ggaaaaaatt tgaagagaaa 180
 tatcatttct catgccaatt tactgctgat ctttttgcaa tgaaccacac agactttatc 240
 atcaccagga ccttccaaga gattgctgga agc 273

<210> 2448
 <211> 290
 <212> nucleic acid
 <213> Glycine max

<220> unsure
 <221> (4), (28), (53), (66), (75), (77), (79), (92) ... (93), (106),
 <222> (126) ... (127), (153)
 <223> unsure at all n locations

<400> 2448
 taancagatt gatccttacc atggtganca tgctgctgag atccttggtg agntctttga 60
 gaagancaag gctgntnct ctcactggga cnnaatctcc cagggnggac tcaagcgtat 120
 tcatgnnaag tacacatggc aaatttactc ggncaggctc ttgacactca ctggtgtgta 180
 tggcttctgg aagcacgtga ccaatcttga acgccgtgag agcaaacgtt acctcgagat 240
 gttctatgct ctcaagtacc gcaaattggc tgagtctgtg ccccttgcta 290

<210> 2449
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2449
 gaagaacgca cgctccgag agttggtgaa cctggtggtg gtggctggag acaggaggaa 60
 ggagtcgaag gacttggaag agaaggccga gatgaagaag atgtatggcc tcacgagac 120

ctacaagttg aacggccaat tcagatggat atcctctcag atgaaccgtg tgaggaacgg 180
 agagctctac cgtgtcatct gtgacacaag ggggtgccttt gtgcagcctg cagtttatga 240
 ggcctttggg ttgactg 257

<210> 2450
 <211> 304
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (165), (169)
 <223> unsure at all n locations

<400> 2450

aggtgaccat gctgctgaga tccttgttga gttctttgag aagagcaagg ctgatccatc 60
 tcactgggac aaaatctccc aggggtggact caagcgtatt catgagaagt acacatggca 120
 aatttactcg gacaggctct tgacactcac tgggtgtgtat ggctncgana agcacgtgac 180
 caatcttgaa cgccgtgaga gcaaacgtta cctcgagatg ttctatgctc tcaagtaccg 240
 caaattggct gagtctgtgc cccttgctat tgaagagtaa attcatgttt gaagagaaca 300
 tcaa 304

<210> 2451
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2451

agaaggccga gatgaagaag atgtatggcc tcatcgagac ctacaagttg aacggccaat 60
 tcagatggat atcctctcag atgaaccgtg tgagaaacgg agagctctac cgtgtcatct 120
 gtgacacaag ggggtgccttt gtgcagcctg cagtttatga ggcctttggg ttgactgtga 180
 gataggccat gacttgtggg ttgccaacgt ttgccacatg caatgggtgg cctgctgaga 240
 tcattgtg 248

<210> 2452
 <211> 255
 <212> nucleic acid

<213> Glycine max

<400> 2452

agaacatcac ggggcttgtc gagtggtagc ggaagaacgc acgcctccgc gagttggtga 60
acctggtggt ggtggctgga gacaggagga aggagtcgaa ggacttgga gagaaggccg 120
agatgaagaa gatgtatggc ctcatcgaga cctacaagtt gaacggccaa ttcagatgga 180
tatcctctca gatgaaccgt gtgaggaacg gagagctcta ccgtgtcatc tgtgacacaa 240
ggggtgcctt tgtgc 255

<210> 2453

<211> 259

<212> nucleic acid

<213> Glycine max

<400> 2453

gaagaacatc acggggcttg tcgagtggta cgggaagaac gcacgcctcc gcgagttggt 60
gaacctggtg gtggtggctg gagacaggag gaaggagtcg aaggacttgg aagagaaggc 120
cgagatgaag aagatgtatg gcctcatcga gacctacaag ttgaacggcc aattcagatg 180
gatatcctct cagatgaacc gtgtgaggaa cggagagctc taccgtgtca tctgtgacac 240
aaggggtgcc tttgtgcag 259

<210> 2454

<211> 276

<212> nucleic acid

<213> Glycine max

<400> 2454

gctcgcagct ggctcatcgc agacctacaa gttgaacggc caattcagat ggatatactc 60
tcagatgaac cgtgtgagga acggagagct ctaccgtgtc atctgtgaca caaggggtgc 120
ctttgtgcag cctgcagttt atgaggcctt tgggttgact gtggttgagg ccatgacttg 180
tacggttgcc aacgtttgcc acatgcaatg gtggtcctgc tgacatcact gtgcatggaa 240
aatctggtta ccacattgat ccttaccatg gtgacc 276

<210> 2455

<211> 231

<212> nucleic acid

<213> Glycine max

<400> 2455

cacagcgtca agggaaagac tttgatgttg aatgacagaa ttcaaaaccc agatgcactc 60
 caacatgttc tgaggcaagc tgaggagtat ctgggcacag tgectcctga aactccctac 120
 tcagaatttg agcacaagtt ccaggagatt ggtttggcga gaggggtgcgg tgacaacgca 180
 gagctagttc ttgagtccat tcaacttctc taggatctac ttgaggcgcc t 231

<210> 2456

<211> 245

<212> nucleic acid

<213> Glycine max

<400> 2456

gaaaagacca agtaccctga gtctgacatt tactggaaaa aatttgaaga gaaatatcat 60
 ttctcatgcc aatttactgc tgatcttttt gcaatgaacc acacagactt tatcatcacc 120
 agcaccttcc aagagattgc tggaagcaag gacactgttg gacagtatga gagtcacact 180
 gccttcaccc ttccaggact ttaccgtgtt gttcacggta ttgatccatt tgatcaaagt 240
 tcaac 245

<210> 2457

<211> 236

<212> nucleic acid

<213> Glycine max

<400> 2457

cagaccaagt accctgagtc tgacatttac tggaaaaaat ttgaagagaa atatcatttc 60
 tcatgccaat ttactgctga tctttttgca atgaaccaca cagactttat catcaccagc 120
 accttccaag agattgctgg aagcaaggac actgttggac agtatgagag tcacactgcc 180
 ttcaccttc caggacttta ccgtgttggt caagggtattg atccatttga tccaaa 236

<210> 2458

<211> 236

<212> nucleic acid

<213> Glycine max

<400> 2458

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 tgaggatgtc gcccttgaac ttgccaagga gttgcaagcc aagccagatc tgattgttgg 120
 aaactacagt gatggaaaca ttgttgcttc tttgttagca cataaattag gagtaactca 180
 gtgtaccatt gctcatgtc tagaaaagac caagtaccct gagtctgaca ttact 236

<210> 2459
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2459
 cccacactga aaccagccgt aggttgacat ccttccaccc tgaaatcgaa gaactccttt 60
 acagctcagt ggagaatgaa gaacacatat gtgtgctgaa ggaccgcagc aagccaatta 120
 tcttcacat ggcaagggtg gatcgagtga agaacatcac aggacttgtg gagtggtagc 180
 gtaagaacgc gaactcgagg gctggtgaac cttgtggttg ttgctggaga caggaggaag 240
 gagtcaaagg actt 254

<210> 2460
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (4), (42)... (45), (53)
 <223> unsure at all n locations

<400> 2460
 ccancaattc ccttctcagt tctaaaggga attgttcgtc annngatct cangattcga 60
 agtctggcca tacttggaac cttacactga ggaacttgct catgagcttg ccaaagagtt 120
 gcaaggcaag ccagatctga ttgtcggaac ctacagtgat ggaaacattg ttgcctcttt 180
 gttggcacat aaattaggag tcatcagtgt accattgtc atgcacttga gaagaccaa 240
 taccocgaat ccgacattta t 261

<210> 2461
 <211> 277
 <212> nucleic acid
 <213> Glycine max

<400> 2461
catcaagaaa caaggccttg atatcacccc tegtattctc attatcactc gtcttctccc 60
tgatggcagt aggaactacc tgtggccaac gtctagagag ggtatatgat actgaatatt 120
gtgacattct cagagttcct ttcagaacag aaaagggaat tgttcgcaaa tggatctcaa 180
gattcgaagt ctggccatac ctagagactt aactgagga tgcgcacctt gaacttgcca 240
aggagttgca agccaagcca gatctgattg ttggaaa 277

<210> 2462
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2462
ggctcgagcg gctcgagcga aactagccag aggttgacct ccttacaccc cgaaatcgaa 60
gaacttgttt acagctctgt ggagaatgaa gaacacatat gcgtgctgaa ggaccgcagc 120
aagccgatta tcttcacat ggcaaggttg gaccgtgtga agaacatcac aggactcgtg 180
gagtggtagc gtaagaacgc gaagctgagg gagtgggtga accttggtggt tgttgccgga 240
gacagga 247

<210> 2463
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2463
cggtcgagg tttatgaggc ctttgggttg actgtggttg aggccatgac ttgtgggttg 60
ccaacgtttg ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt 120
taccacattg atccttacca tggtgacct gctgctgaga tccttggtga gttctttgag 180
aagagcaagg ctgatccatc tactggggac aaaatctccc aggggtggact caagcgtatt 240
catgagaagt 250

<210> 2464
<211> 268
<212> nucleic acid
<213> Glycine max

<400> 2467
 caagaatgcg cgctccgcg agttggtaaa cctcgtggtg gtggccggag acaggaggaa 60
 ggagtccaag gacttgaag agaaggccga gatgaagaag atgtatggcc tcatcgagac 120
 ctacaagttg acggccaatt cagatggatc tcctctcaga tgaaccgtgt gaggaacgga 180
 gagctctacc gtgtcatctg tgacacaagg ggtgcctttg tgcagcctgc agtttatgag 240
 gcctttgggt tga 253

<210> 2468
 <211> 251
 <212> nucleic acid
 <213> Glycine max

<400> 2468
 tatcaattct catgccaatt tactgctgat ctttttgcaa tgaaccacac agactttatc 60
 atcaccagca cttccaaga gattgctgga agcaaggaca ctgttggaca gtatgagagt 120
 cacactgcct tcacccttcc aggactctac cgtgttggtc acggtattga tccctttgat 180
 ccagagttca acatcgtctc tcccggtgcc gacatgagca tatacttccc atacactgaa 240
 actgagcgta g 251

<210> 2469
 <211> 258
 <212> nucleic acid
 <213> Glycine max

<400> 2469
 cggtctgaga cggtcgcgag aagcgacaga agggcgacat tgaagagctt ctttacagct 60
 cagtggagaa tgaagaacac atatgtgtat tgaaggaccg caacaagccg atcatcttca 120
 ccatggcaag acttgaccgt gtgaagaaca tcacgggact tgtggagtgg tatggcaaga 180
 atgcgcgcct ccgcgagttg gtaaacctcg tggtggtggc cggagacagg aggaaggagt 240
 ccaagggact tggaagag 258

<210> 2470
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (118)
 <223>

 <400> 2470

 attgatccct ttgatccaaa gttcaacatc gtctctcccg gtgccgacat gagcatatac 60
 ttcccataca ctgaaactga gcgtaggtta acagagttcc accccgacat tgaagcgnct 120
 ctttacagct cagtggagaa tgaagaacac atatgtgtat tgaaggaccg caacaagccg 180
 atcatcttca ccatggcaag acttgaccgt gtgaagaaca tcacgggact tgtggagtgg 240
 tatggcaaga atgcgcgcct ccgcgagttg gta 273

<210> 2471
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2471

 atgacttgtg ggttaccaac atttgccaca tgcaatggtg gtcctgctga gatcattgtg 60
 catggaaaat ctggttacca cattgaccct taccatggtg accgtgctgc tgagatcctt 120
 gttgagttct ttgaaaagag caaggctgac ccatctcact gggacaaaat ctcccagggc 180
 gtactcaagc gtattcatga gaagtacaca tggcaaattt actctgacag gctcttgaca 240
 ctcaactggtg tgtatgg 257

<210> 2472
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2472

 tggcaagaat gcgcgcctcc gcgagttggt aaacctcgtg gtggtggccg gagacaggag 60
 gaaggagtcc aaggacttgg aagagaaggc cgagatgaag aagatgtatg gcctcatcga 120
 gacctacaag ttgaacggcc aattcagatg gatctcctct cagatgaacc gtgtgaggaa 180
 cggagagctc taccgtgtca tctgtgacac aaggggtgcc tttgtgcagc ctgcagttt 239

<210> 2473

<211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 2473

tgccaattta ctgctgatct ttttgcaatg aaccacacag actttatcat caccagcacc 60
 ttccaagata ttgctggaag caaggacact gttggacagt atgagagtca cactgccttc 120
 acccttccag gactctaccg tgttggtcac ggtattgatc cctttgatcc aaagttcaac 180
 atcggtttctc gcggtgccga catgagcata tacttcccat aactgaaac tgttcgtagg 240
 ttaacagagt tccacacaac ata 263

<210> 2474
 <211> 230
 <212> nucleic acid
 <213> Glycine max

<400> 2474

ccgctcgagc ggctcgagca gtaccttcca ggagattgct ggaagcaagg aactgtttgg 60
 acagtatgag tctcacacag cctttacccc tcttggaactc taccgtgttg tgcaaggcat 120
 tgatgtcttt gatccaaaat tcaacattgt ctcccttgga gctgatcaaa ccatttactt 180
 cccccccacc gaaactagcc gtaggttgac ctccctccac cccgaaatcg 230

<210> 2475
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2475

aatttactgc tgatcttttt gcaatgaacc acacagactt tatcatcacc agcaccttcc 60
 aagagattgc tggactcaag gacactgttg gacagtatga gagtcacact gccttcaccc 120
 ttccaggact ttaccgtggt gttcacggta ttgatccatt tgatccaaag ttcaacattg 180
 tctctcccggt tgcagacatg ggtatatact tcccatcac tgaaactgag cgtaggttaa 240
 cagaattcca ctctg 255

<210> 2476
 <211> 276
 <212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (18), (33), (44), (66) ... (67), (81) ... (82), (99), (101), (140),
(191), (203) ... (204), (249)

<223> unsure at all n locations

<400> 2476

ggagtatctg ggcacagngc ctctgaaac tcnctactgc agantttgag cacaagttcc 60

aggagnntgg tttggagaga nngtggggtg acaacgcgna ntgtccttga gtcaattcaa 120

cttctcttgg atcttcttgn ggccccctgac ccgtgcaccc ttgagacttt ccttgggaaga 180

atccctatgg ngttcaatgt tgnnatcttt ctccccatgg ttactttgcc caagataatg 240

tcttgggana cctgacactg gtggccaggt tgttac 276

<210> 2477

<211> 251

<212> nucleic acid

<213> Glycine max

<400> 2477

gtgacactgc cgagcgtgtc ctcgagatga tccagcttct cctggacctt cttgaggcac 60

ctgacccttg caccctcgag acattccttg gaagagtccc tatggtcttc aatgttgta 120

tcctttctcc ccattggttac tttgccaag ataatgtctt gggataccct gacactggtg 180

gacaggttgt ttacatcttg gatcaagttc gtgccttgga gaatgagatg ctcaaccgca 240

tcaagaaaca a 251

<210> 2478

<211> 270

<212> nucleic acid

<213> Glycine max

<400> 2478

cggtgcagac atgggtatat acttcccata cactgaaact gagcgtaggt taacagaatt 60

ccactctgac attgaagagc ttctttacag ctcaagtggag aatgaggaac acatatgcgt 120

attgaaggac cgcaacaaac caataatctt caccatggca aggcttgacc gtgtgaagaa 180

catcacgggg attgtcgagt ggtacgggaa gaacgcacgc ctccgcgagt tggatgaacct 240

ggtggtggtg gctggagaca ggaggaagga

<210> 2479
 <211> 174
 <212> nucleic acid
 <213> Glycine max

<400> 2479
 gatcaaacca ttacttccc ccacactgaa accagccgta ggttgacatc cttccaccct 60
 gaaatcgaag aactccttta cagctcagtg gagaatgaag aacacatatg tgtgctgaag 120
 gaccgcagca agccaattat cttcaccatg gcaagggttg atcgagtga gaac 174

<210> 2480
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2480
 ccatgctgct gagatccttg ttgagttctt tgagaagagc aaggctgac catctcactg 60
 ggacaaaatc tcccagggtg gactcaagcg tattcatgag aagtacacat ggcaaattta 120
 ctccgacagg ctcttgacac tcaactggtg gtatggcttc tggaaacacg tgaccaatct 180
 tgaacgccgt gagagcaaac gttacctoga gatgttctat gctctcaagt accgcaaat 239

<210> 2481
 <211> 237
 <212> nucleic acid
 <213> Glycine max

<400> 2481
 gaaccacaca gactttatca tcaccagcac cttccaagag attgctggaa gcaaggacac 60
 tgttgagacag tatgagagtc aactgcctt cacccttcca ggactctacc gtgttggtca 120
 cggattgat ccctttgatc caaagttcaa catcgtctct cccggtgccg acatgagcat 180
 atacttcca tacactgaaa ctgagcgtag gtaacagag ttccaccccg acattga 237

<210> 2482
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2482
 ggtaacaga gttccacccc gacattgaag ggcttcttta cagctcagtg gagaatgacg 60
 aacacatatg tgtattgaag gaccgcaaca agccgatcat cttcaccatg gcaagacttg 120
 accgtgtgaa gaacatcacg gcacttgtgg agtggatatgg caagaatgcg cgctccgcg 180
 agttggtaaa cctcgtcgtg gtggccggag acaggaggca ggagtccacg gacgtggaag 240
 agaaggccga gatga 255

<210> 2483
 <211> 264
 <212> nucleic acid
 <213> Glycine max

<400> 2483
 gttctttgag aagagcaagg ctgatccatc tactgggac aaaatctccc aggggtggact 60
 caagcgtatt catgagaagt acacatggca aatttactcg gacaggctct tgacactcac 120
 tgggtgtgat ggcttctgga agcacgtgac caatcttgaa cgccgtgaga gcaaacgtta 180
 cctcgagatg ttctatgctc tcaagtaccg caaattggct gagtctgtgc ctttgctatt 240
 gaagagaaat tcatgtttga agag 264

<210> 2484
 <211> 233
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (66)
 <223>

<400> 2484
 ctcgagccga atcggtcga gaacatcaca ggactcgtgg agtggcacgg taagaacgcg 60
 acctgnaggg agttggtgaa ctttgtggtt gttgccggag acaggaggaa ggagtcgaag 120
 gacttggaa agaggccga gatgaagaag atgtacggcc tgatcgagac ctacaagttg 180
 aacgggcaat tcagatggat ttcattctcag atgaaccgtg tgaggaacgg aga 233

<210> 2485
 <211> 267

<212> nucleic acid
 <213> Glycine max

 <400> 2485

 atgagatgct caaccgcac aagaaacaag gccttgatat caccctcgt attctcatta 60
 tcaactcgtct tctcgtgat gcagtaggaa ctacctgtgg ccaacgtcta gagaggggtat 120
 atgatactgg ctattggaca ttctcagagt tcctttcaga acagaaaagg gaattgttcg 180
 caaatggatc tcaagattcg aagtctggcc atacctagag acttacactg aggatgtcgg 240
 ccttgaactt gcccaaggagt tgcaagc 267

<210> 2486
 <211> 238
 <212> nucleic acid
 <213> Glycine max

 <400> 2486

 ccgcaacaaa ccaataatct tcaccatggc aaggcttgac cgtgtgaaga acatcacggg 60
 gcttgctgag tggtagggga agcacgcacg cctccgcgag ttggtgaacc tgggtggtggt 120
 ggctggagac aggaggaagg agtcgaagga cttggaagag aaggccgaga tgaagaagat 180
 gtatggcctc atcgagacct acaagttgaa cggccaattc agatggatat cctctcag 238

<210> 2487
 <211> 259
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (22), (30) ... (31), (44), (46), (94)
 <223> unsure at all n locations

 <400> 2487

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 aacacatatg tgtattgaag gaccgcaaac aagncgatca tcttcacat ggcaagactt 120
 gaccgtgtga agaacatcac gggacttggt gagtggtatg gcaagaatgc gcgcctccgc 180
 gagttggtaa acctcgtggt ggtggccgga gacaggagga aggagtccaa ggacttggaa 240
 gagaaggccg agatgaaga 259

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cctcgacgcc gagcgtgtcc tcgagatgat ccagcttctc ttggaccttc ttgaggcaac 60
cgaccctacc accctcgaga acttccttgg aagagttcct atggtcttca atgttgttat 120
cctttctccc catggttact ttgcccaga taatgtcttg gggtagcctg acactgggtgg 180
acaggttggt tacatcttgg atcaagttcg tgccttggag aatgagatgc 230

<400> 2489

gttcttttgaa aagagcaagg ctgacccatc tcaactgggac aaaatctccc aggggtggact 60
caagcgtatt catgagaagt acacatggca aatttactct gacaggctct tgacactcac 120
tggtgtgtat ggcttcttga agcatgtgac caatcttgaa cgccgtgaga gcaaacgtta 180
ccttgagatg ttctatgctc tcaagtaccg caaattgggt gagtctgtg 229

<400> 2490

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atatcatact	gaatattgtg	acattctccg	agttcctttc	agaaccgaaa	acggaattgt	120
tcgcaaattg	atctcaacat	tcgaagtctg	gccataccta	gagacttaca	ctgaggatgt	180
tgcccttgaa	cttgccaagg	agttgcaagc	caagccagat	ctgatcgttg	gaaactacag	240
tgatggaaaac	attggttg					257

870

<213> Glycine max

<400> 2491

acagacttta tcatcaccag caccttccaa gagattgctg gaagcaagga cactggttga 60
cagtatgaga gtcacactgc cttcaccctt ccaggacttt accctggtgt tcacggtatt 120
gatccatttg atccaaagtt caacattgtc tctcccgggtg cagacatggg catatacctc 180
ccatacactg aaactgagcg taggttaaca gaattccact ctgacatcga agagcttctt 240
tacagctcag 250

<210> 2492

<211> 273

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (52), (91)

<223> unsure at all n locations

<400> 2492

gccaacgttt gccacatgca atggtggtcc tgetgagatc attgtgcatg gnaaatctgg 60
ttaccacatt gatccttaac atggtgacat nctgctgaga tccttggtga gttctttgag 120
aagagcaagg ctgatccatc ctactggga caaaatctcc cagggtggac tcaagcgtat 180
tcatgagaag tacacatggc aaatttactc ggacaggctc ttgacactca ctggtgtgta 240
tggtcttgga agcacgtgac caatctgaac gcc 273

<210> 2493

<211> 245

<212> nucleic acid

<213> Glycine max

<400> 2493

cggtctgagg tttatgaggc ctttgggttg actgtggttg aggccatgac ttgtgggttg 60
ccaacgtttg ccacatgcaa tgggtggtcct gctgagatca ttgtgcatgg aaaatctggt 120
taccacattg atccttacca tggtgaccat gctgctgaga tccttggtga gttctttgag 180
aagagcaagg ctgatccatc tctactgggac aaaatctccc aggggtggact caagcgtatt 240
catga 245

<210> 2494
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (23), (36) ... (37), (235)
 <223> unsure at all n locations

<400> 2494
 taacaagttg aacggccaat acngatggat atcctnncag atgaaccgtg tgaggaacgg 60
 agagctctac cgtgtcatct gtgacacaag ggggtgccttt gtgcagcctg cagtttatga 120
 ggcctttggg ttgactgtgg ttgaggccat gacttgtggg ttgccaacgt ttgccacatg 180
 caatggtggt cctgctgaga tcatgtgcag gaaaatctgg ttaccacatg atcctacca 240
 ggtgaccagc tg 252

<210> 2495
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2495
 acaggactcg tggagtggta cggtaagaac gcgaactcga gggagtgtgtg gaaccttgtg 60
 gttgttgccg gagacaggag gaaggagtcg aaggacttgg aagagaaggc cgagatgaag 120
 aagatgtacg gcctgatcga gacctacaag ttgaacgggc aattcagatg gatttcatct 180
 cagatgaacc gtgtgaggaa cggagagctg taccgtgtga tctgcgacac caagggagct 240
 ttcgtgcagc cggtatata c 261

<210> 2496
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2496
 caaagttcaa cattgtctct cccggtgcag acatgggcat atacttccca tacactgaaa 60
 ctgagcgtag gttaacagaa ttccactctg acatcgaaac acttctttac agctcagtgg 120

cgccaattc agatggatat cctctcagat gaaccgtgtg aggaacggag agctc 235

<210> 2500
<211> 238
<212> nucleic acid
<213> Glycine max

<400> 2500

acaaaatctc ccaggggtgga ctcaagcgta ttcatgagaa gtacacatgg caaatcttact 60
cggacaggct cttgacactc actggtgtgt atggcttctg gaagcacgtg accaatcttg 120
aacgccgtga gagcaaacgt tacctcgaga tgttctatgc tctcaagtac cgcaaattgg 180
ctgagtctgt gccccttgct attgaagagt aaattcatgt ttgaagagaa catcaatg 238

<210> 2501
<211> 264
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (202), (217)
<223> unsure at all n locations

<400> 2501

ctgaaactga gcgtaggtta acagaattcc actctgacat cgaagcgctt ctttacagct 60
cagtggagaa tgaggaacac atatgcgtat tgaaggaccg caacaaacca ataattctca 120
ccatggcaag gcttgaccgt gtgaagaaca tcacggggct tgcgagtgg tacgggaaga 180
acgcacgcct tcgcgagatt gntaaccatg ctgatgntgc atgagacagg aggaaggaga 240
ctgaagactt tgaagagaag gccg 264

<210> 2502
<211> 257
<212> nucleic acid
<213> Glycine max

<400> 2502

ctgaaactga gcgtaggtta acagaattcc actctgacat cgaaacaatt ctttacagct 60
cagtggagaa tgaggaacac atatgcgtat tgaaggaccg caacaaacca atatcttcac 120
catggcaagg cttgaccgtg tgaagaacat cacggggctt gtcgagtgg acgggaagaa 180

cgcacgcctc cgcgagttgg tgaacctggt ggtggtggct ggagacagga ggaaggagtc 240
gaaggacttg gaagaga 257

<210> 2503
<211> 175
<212> nucleic acid
<213> Glycine max

<400> 2503

caacttctct tggatcttct tgaggccctt gacccttgca cccttgagac tttccttgga 60
agaattccta tgggtcttcaa tgttgctcatt ctttctcccc atggttactt tgcccaagat 120
tatgtcttgg gataccctga cactggtggc caggttgttt acatcttgga tcaag 175

<210> 2504
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2504

gggaattggt cgcaaattgga tctcaagatt cgaagtctgg ccatacctag agacttacac 60
tgaggatgtc gccctggaac ttgccaagga gttgcaagcc aagctagatc tgattgttgg 120
aaactacagt gatggaaaca ttgttgcttc tttgttagca cataaattag gagtaactca 180
gtgtacaat 189

<210> 2505
<211> 216
<212> nucleic acid
<213> Glycine max

<400> 2505

gacatcgaag agcttcttta cagctcagtg gagaatgagg aacacatatg cgtattgaag 60
gaccgcaaca aaccaataat cttcaccatg gcaagggtga ccgtgtgaag aacatcacgg 120
ggcttgctga gtggtacggg aagaaacgaa ggcttcgcga gttggtgaac tgggtggtgg 180
ggctgaagac aggaggaagg attcgaggct ttgaaa 216

<210> 2506
<211> 246

<212> nucleic acid
<213> Glycine max

<400> 2506

ctcgagccga atcggtctga gcggctcgag cggctcgaga tgaagcacac atatgtgtat 60
tgaaggaccg caacaagccg aacatcttca acatggcaag acttgaccgt gtgaagaaca 120
tcacgggact tgtggagtgg tatggcaaga atgcgcgcct ccgcgagttg gtaaacctcg 180
tggtggtgga cggagacagg aggaaggagt ccaaggacgt tgaagagaag gccgagatga 240
agaaga 246

<210> 2507
<211> 239
<212> nucleic acid
<213> Glycine max

<400> 2507

tgaagaagat gtacggcctg atcgagacct acaagttgaa cggccaattc agatggattt 60
catcgcagat gaaccgtgtg aggaatggag agctctaccg cgtgatctgc gacaccaggg 120
gtgctttcgt gcagcctgct gtatacgagg cttttggttt gacagtgggtt gaggccatga 180
cttgccggtt gccaacattc gccacatgca atggtggtcc tgctgagatc attgtgcac 239

<210> 2508
<211> 269
<212> nucleic acid
<213> Glycine max

<400> 2508

gggtggactc aagcgtattc atgagaagta cacatggcaa atttactcgg acaggctctt 60
gacactcact ggtgtgtatg gcttctggaa gcacgtgacc aatcttgaac gccgtgagat 120
gaaacgttac ctcgagatgt tctatgctct caagtaccgc aaattggctg agtctgtgcc 180
ccttgctatt gacgagtaaa ttcatgtttg aagagaacat caatggcgaa accggctttt 240
ggtcgtttga agtcttatgg agctttcat 269

<210> 2509
<211> 184
<212> nucleic acid
<213> Glycine max

acaaaccata atcttcacca tggcaatgct tgacgtgttg aagaacatca cggggcttgt 180
cgagtgggtac ggggaagaacg cacgcctccg cgagttgngt gaactggtgg tgggtggctgg 240
agac 244

<210> 2518
<211> 260
<212> nucleic acid
<213> Glycine max

<400> 2518

ccggtgcaga catgggcata tacttcccat aactgaaac tgagcgtagg ttaacagaat 60
tccactctga catcgaacta cttctttaca gtcagtggga gaatgaggaa cacatatgcg 120
tattgaagga ccgcaacaaa ccaataatct tcaccatggc aaggcttgac cgttgtgaag 180
aacatcacgg ggcttgtcga gtggtacggg aagaacgcac gcctccgcga gttggtgaac 240
ctggtggtgg tagctggaga 260

<210> 2519
<211> 177
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (129), (159), (165), (167) ... (168), (170), (176)
<223> unsure at all n locations

<400> 2519

tctaccgtgt catctgtgac acaaggggtg cctttgtgca gcctgcagtt tatgaggcct 60
ttgggttgac tgtggttgag gccatgactt gtgggttacc aacatttgcc acatgcaatg 120
gtggtcctnc tgagatcatt gtgcatggaa aatctggtna ccacntnnn cccttnt 177

<210> 2520
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2520

atagagaggg tatactgata ctgaatattg tgacattctc agagttcctt tcagaacaga 60
aaaggaatt gttcgcaa at ggatctcaag attcgaagtc tggccatacc tagagactta 120

cactgaggat gtcgcccttg aacttgtcaa ggagttgaag ccaagtcaga tctgattggt 180
 ggaaactaca gtgatggaaa cattgttgcc tctttgtag cacataaatt aggagtcact 240
 cagt 244

<210> 2521
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2521

gtaaatgtcg gattcggggg atttgggtctt ctcaagtgc tgagcaatgg tacactgagt 60
 gactcctaatt ttatgtgcc acaaagaggc aacaatgttt ccatcactgt agtttccgac 120
 aatcagatct cattatcacc agtaccttcc aggagattgc tggaagcaag gacactgttg 180
 gacagtatga ctctcacaca gcccttacc ttcttggtact ctaccgtgtt gtgcacggca 240
 ttgatgtctt tgatccaaa 259

<210> 2522
 <211> 239
 <212> nucleic acid
 <213> Glycine max

<400> 2522

cggacaggct cttgacactc actggtgtgt atggcttctg gaagcacgtg accaatcttg 60
 aacgccgtga gagcaaactg tacctcgaga tgttctatgc tctcaagtac cgcaaattgg 120
 ctgagtctgt gcccttctgt attgaagagt aaattcatgt ttgaagagaa catcaatgga 180
 gaaaccggct tttggtcgtt tgaagtctta tggagcttct ataaataacg ccattgatt 239

<210> 2523
 <211> 235
 <212> nucleic acid
 <213> Glycine max

<400> 2523

cggacaggct cttgacactc actggtgtgt atggcttctg gaagcacgtg accaatcttg 60
 aacgccgtga gagcaaactg tacctcgaga tgttctatgc tctcaagtac cgcaaattgg 120
 ctgagtctgt gcccttctgt attgaagagt aaattcatgt ttgaagagaa catcaatgga 180

6636T0"EBT2E60

gaaaccggct tttggtcggt tgaagtctta tggagctttc ataaataacg ccatt 235

<210> 2524
<211> 143
<212> nucleic acid
<213> Glycine max

<400> 2524

ctcgagccgc accagtacct tccaggagat tgctggaagc aaggacactg ttggacagta 60

tgcgtctcac acagccttta ccttctctgg actctaccgt gttgtgcacg gcattgatgt 120

ctttgatcca aaattccaca ttg 143

<210> 2525
<211> 142
<212> nucleic acid
<213> Glycine max

<400> 2525

gtcggaaact acagtgatgg aaacattggt gcctctttgt tggcacataa attaggagtc 60

actcagtgtta ccattgctca tgcacttgag aagagcgaat accccgaatc cgacatgtac 120

tggacaagat tgggagagag gt 142

<210> 2526
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2526

ctcactggtg tgtatggctt ctggaagcac gtgaccaatc ttgaacgccg tgagagcaaa 60

cgttacctcg agatgttcta tgctctcaag taccgcaa at tggctgagtc tgtgcccctt 120

gctattgaag agtaaattca tgtttgaaga gaacatcaat ggagaaaccg gcttttggtc 180

gtttgaagtc ttatggagct ttcataaata acgccattga ttttgattgt gatcagcttt 240

tggatttaaa gagt 254

<210> 2527
<211> 131
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (19), (28), (46), (64)... (66), (85), (87), (89), (94), (106),
 (118)... (121)
 <223> unsure at all n locations
 <400> 2527
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 atgnnnaaga tgtacggcct gatcnananc tacnagttga acgggnaatt cagatgggnn 120
 ncatctcaga t 131
 <210> 2528
 <211> 161
 <212> nucleic acid
 <213> Glycine max
 <400> 2528
 tatgagagtc aactgcctt cacccttcca ggactctacc gtgttggttca cggtattgat 60
 ccctttgatc caaagttcaa catcgtctct cccggtgccg acatgagcat atacttccca 120
 tacactgaaa ctgaacgtag gttaacagag ttccacacaa c 161
 <210> 2529
 <211> 152
 <212> nucleic acid
 <213> Glycine max
 <400> 2529
 ctggactcta ccgcgttggt catggtattg atgtctttga tccaaaattc aacattgtct 60
 cccttgagc tgatcaaacc atttacttcc cccacactga aaccagccgt aggttgacat 120
 ccttccaccc tgaaatcgaa gaactccttt ac 152
 <210> 2530
 <211> 232
 <212> nucleic acid
 <213> Glycine max
 <400> 2530
 ctgaaactga gcgtagggta acagaattcc actctgagat cgaagcgctt ctttacagct 60
 cagtggagaa tgaggaacac atatgcgtat tgaaggaccg gaacaaacga atatcttcac 120

catggcaagg cttgaccgtg tgaagaacat cacggggctt gtcgagtggg acgggaagaa 180
cgcaagcctc cgcgagttgg tgaacctggg ggtgggtggct ggagacagga gg 232

<210> 2531
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2531

ttcgacacgc acggccaggc tcttgacact caccggtgtg tatggcacct ggaagcccgt 60
gaccaatcgc gaacgccgtg agagcaaacg ctacgccgag atgttccaag ctactcaagt 120
accgcaaatt ggctgagtct gtgccccttg ctactgaaga gtaacttcat gtttgaagag 180
aacatcaatg gagacaccgg cttttggtcg tttgaagtct tatggagctt tcataaataa 240
cgcc 244

<210> 2532
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2532

attcttgagt tcatggaagg gaaaccagat cttgttattg gaaattacac tgatggaaat 60
ttggtagcat cactaatggc tagaaaactt gggataactc aggggaactat agcacatgct 120
ttagagaaga ccaagtatga agactcagat gtcaagtgga aagagttgga cccaagtac 180
cacttctcgt gtcaattcat ggcggatata gtggcaatga atgcatctga tttcatcata 240
accagcacat accacgaatg tcgtggaagc aaagataga 279

<210> 2533
<211> 244
<212> nucleic acid
<213> Glycine max

<400> 2533

gttcatggaa gggaaaccag atctagttat tggaaattac actgatggaa atttggtagc 60
atcactaatg gctagaaaac ttgggataac tcagggaact atagcacatg ctttagagaa 120
gaccaagtat gaagactcag atgtcaagtg gaaagagttg gaccccaagt accacttctc 180

60342220

gtgtcaattc atggcggata cagtggcaat gaatgcatct gatttcatca taaccagcac 240
 atac 244

<210> 2534
 <211> 262
 <212> nucleic acid
 <213> Glycine max
 <400> 2534

gccgtgagag ccgccgctat ctcgagatgt tctatgctct caagtaccgc aaattggctg 60
 agtctgtgcc ccttgctgct gagtaaactg aggataaaga gttggataaa gaaatggagg 120
 aaccggcttt ttctttctca tttggagttt gtcgcacttg agttttataa ataatgtccg 180
 tgattttagt tttgtgatta agctttcgat aagaggagag aaagagaagg aaaaaaaagt 240
 tgcttttttt tttggtggtt gc 262

<210> 2535
 <211> 266
 <212> nucleic acid
 <213> Glycine max
 <400> 2535

tcgagatggt ctatgctctc aagtaccgca aattggctga gtctgtgccc cttgctgctg 60
 agtaaactga ggataaagag ttggataaag aaatggagga accggctttt tctttctcat 120
 ttggagtttg tcgcacttga gttttataaa taatgtccgt gatttttagtt ttgtgattaa 180
 gctttcgata agaggagaga aagagaagga aaaaaaaagt tgcttttttt tttgttggtg 240
 catgattggg acttgattgg aaaagc 266

<210> 2536
 <211> 241
 <212> nucleic acid
 <213> Glycine max
 <400> 2536

gttggataaa gaaatggagg aaccggcttt ttctttctca tttggagttt gtcgcacttg 60
 agttttataa ataatgtccg tgattttagt tttgtgatta agctttcgat aagaggagag 120
 aaagagaagg aaaaaaaaag ttgctttttt tttgttggtt gcatgatttg gatcttgatt 180

cctgatgatt ttaattttgt gattaagctt tcgataagag acagagagag aaaaaaaaaa 240
256

aaaaaaaaag gggggg

<210> 2540
<211> 259
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2)
<223>

<400> 2540
cntgtgtcta accttgaccg ccgtgagagc cgccgctatc tcgagatggt ctatgctctc 60
aagtaccgca aattggccga gtctgtgccc cttgctgttg agtaaaactga ggatgaagag 120
ttggataaag aaatggagga accggctttt tgtttctcat ttggagtttg tcttacttga 180
gttctataaa taatatgtcc ctgatgattt taattttgtg attaagcttt cgataagaga 240
cagagagaga aaaaaaagg 259

<210> 2541
<211> 250
<212> nucleic acid
<213> Glycine max

<400> 2541
gccgctatct cgagatgttc tatgctctca agtaccgcaa attggccgag tctgtgcccc 60
ttgctgttga gtaaactgag gatgaagagt tggataaaga aatggaggaa ccggcttttt 120
gtttctcatt tggagtttgt cttacttgag ttctataaat aatatgtccc tgatgatttt 180
aattttgtga ttaagctttc gataagagac agagagagaa aaaaaaggaa aaaaaaaaaa 240
aagcctttta 250

<210> 2542
<211> 189
<212> nucleic acid
<213> Glycine max

<400> 2542

gtgagagccg cgcctatctc gagatgttct atgctctcaa gtaccgcaaa ttggccgagt 60
 ctgtgcccct tgctgttgag taaactgagg atgaagagtt ggataaagaa atggaggaac 120
 cggttttttg tttctcattt ggagtttgtc ttacttgagt tctataaata atatgtccct 180
 gatgatttt 189

<210> 2543
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<400> 2543

gccgtgagag ccgcgcctat ctcgagatgt tctatgctct caagtaccgc aaattggccg 60
 agtctgtgcc ccttgctggt gagtaaactg aggatgaaga gttggataaa gaaatggagg 120
 aaccggcttt ttgtttctcat ttggagtttg tcttacttga gttctataaa taatatgtcc 180
 ctgatgattt taattttgtg attaagcttt cgataagaga cagagagag 229

<210> 2544
 <211> 223
 <212> nucleic acid
 <213> Glycine max

<400> 2544

ctttaggccg agtctgtgcc ccttgctggt gagtaaactg aggatgaaga gttggataaa 60
 gaaatggagg aaccggcttt ttgtttctca tttggagttt gtcttacttg agttctataa 120
 ataatatgtc cctgatgatt ttaattttgt gattaagctt tcgataagag acagagagag 180
 aaaaaaagg aaaaaaaaaa agccctttta ctttttgtct ttt 223

<210> 2545
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<400> 2545

ctcgagccgc aagacctggt gtgtgggagt acctgagagt gaatgtgcac gctcttggtg 60
 ttgaggagtt gcaacctgct gactacctgc acttcaagga agaacttggt gacggaagtt 120
 ctaatggcaa ctttgtgctt gagttggact ttgaaccatt caatgcagcc ttcccccgcc 180

<400> 2551
 cggttcattct gttttcagtt gaagtctttc nctagccaat ggccactgat cgtttgacnc 60
 gtnntcacag tcnccgtgag aggcttgatg aaaccctcac tgccaacagg aacgaaattt 120
 tggcccttct gtcaaggatc gaagctaagg gcaaggggat cctgcaacac caccagggtca 180
 ttgctgagtt tgaggaaatc cctgaggaga acaggcagaa gcttactgat ggtgcctttg 240
 gagaagtctt gagatctaca caggaagcca tagttttgcc accatgggtt gctctggc 298

<210> 2552
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2552
 ttttctggt gaagtctttc cctagccaat ggccaccgat cgtttgaccc gggttcacag 60
 tctccgtgag aggcttgatg aaaccctcac tgccaacagg aatgaaattt tggcccttct 120
 gtcaaggatc gaagccaagg gcaagggcat cctgcaacac caccagggtca ttgctgagtt 180
 tgaggaaatc cctgaggaga acagacagaa gctcactgat ggtgcctttg gagaagtctt 240
 gagatctaca caggaagcca ta 262

<210> 2553
 <211> 291
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (168)
 <223>

<400> 2553
 cccctctcta ttttgcgttc attctgtttt ccagttgaag tctttcccta gccaatggcc 60
 actgatcggt tgaccgggt tcacagtctc cgtgagaggc ttgatgaaac cctcactgcc 120
 aacaggaacg aaattttggc ccttctgtca aggatcgaag ctaagtanca aggggatcct 180
 gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca ggcagaagct 240
 tactgatggt gcctttggag aagtcttgag atctacacag gaagccatag t 291

<210> 2554
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2554
 ctcaactgcca acaggaatga aattttggcc cttctgtcaa ggatcgaagc caagggcaag 60
 ggcactctgc aacaccacca ggtcattgct gagtttgagg aaatccctga ggagaacaga 120
 cagaagctca ctgatgggtgc ctttgagaa gtcttgagat ctacacagga agccatagtt 180
 ttgccaccat gggttgctct ggctgttcgt ccaagacctg gtgtgtggga gtacctgaga 240
 gtgaatg 247

<210> 2555
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2555
 tctttatacc cccctctct tttttgcgtt cattctgttt tcctgttgaa gtctttccct 60
 agccaatggc caccgatcgt ttgaccggg ttcacagtct ccgtgagagg cttgatgaaa 120
 ccctcactgc caacaggaat gaaattttgg cacttctgtc aaggatcgaa gccaaaggca 180
 agggcatcct gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
 gacagaagct cactgatggg gcctttgg 268

<210> 2556
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2556
 tctctttata cccccctct cttttttgcg ttcattctgt tttctgttg aagtctttcc 60
 ctagccaatg gccaccgatc gtttgaccgg ggttcacagt ctccgtgaga ggcttgatga 120
 aaccctcact gccaacagga atgaaatttt ggcccttctg tcaaggatcg aagccaaggg 180
 caagggcatc ctgcaacacc accaggtcat tgctgagttt gaggaaatcc ctgaggagaa 240
 cagacagaag ctactgatg 260

<210> 2557
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2557
 ccccccctctc ttttttgctg tcattctgtt ttctgttga agtctttccc tagccaatgg 60
 ccaccgatcg ttgacccgg gttcacagtc tccgtgagag gctggatgaa accctcactg 120
 ccaacaggaa tgaaattttg gcccttctgt caaggatcga agccaagggc aagggcatcc 180
 tgcaacacca ccaggtcatt gctgagtttg aggaaatccc tgaggagaac agacagaagc 240
 tcactgatgg tgcctttgga g 261

<210> 2558
 <211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2558
 ctttataccc cccctctctt ttttgcttc attctgtttt cctgatgaag tctttcccta 60
 gccaatggcc accgatcgtt tgacccgggt tcacagtctc cgtgagaggc ttgatgaaac 120
 cctcactgcc aacaggaatg aaattttggc ccttctgtca aggatcgaag ccaagggcaa 180
 gggcactctg caacaccacc aggtcattgc tgagtttgag gaaatccctg aggagaacag 240
 acagaagctc actg 254

<210> 2559
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2559
 gcgttcattc tgttttcctg ttgaagtctt tccgtagcca atggccaccg atcgtttgac 60
 ccgggttcac agtctccgtg agaggcttga tgaaaccctc actgccaaca ggaatgaaat 120
 tttggccctt ctgtcaagga tcgaagccaa gggcaagggc atcctgcaac accaccaggt 180
 cattgctgag ttgaggaaa tccctgagga gaacagacag aagctcactg atggtgcctt 240
 tgg 243

<210> 2560
 <211> 271
 <212> nucleic acid
 <213> Glycine max

<400> 2560
 ctttacaccc ccctctctat tttgcgttca ttctgttttc cagttgaagt ctttccttag 60
 ccaatggcca ctgategttt gacccgggtt cacagtctcc gtgagaggct tgatgaaacc 120
 ctcaactgcc acaggaacga aattttggcc cttctgtcaa ggatcgaagc taagggaag 180
 gggatcctgc aacaccacca ggtcattgct gagtttgagg aaatccctga ggagaacagg 240
 cagaagctta ctgatggtgc ctttgagaa g 271

<210> 2561
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2561
 ctctattttg cgttcattct gttttccagt tgaagtcttt ccatagccaa tggccactga 60
 tcgtttgacc cgggttcaca gtctccgtga gaggttgat gaaaccctca ctgccaacag 120
 gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag ggcaagggga tcctgcaaca 180
 ccagcaggtc attgctgagt ttgaggaaat ccctgaggag aacaggcaga agcttactga 240
 tgggtgccttt ggaga 255

<210> 2562
 <211> 233
 <212> nucleic acid
 <213> Glycine max

<400> 2562
 ttttgcgttc attctgtttt cctgttgaag tctttcccta gccaatggcc accgatcgtt 60
 tgacccgggt tcacagtctc cgtgagaggc ttgatgaaac ctcactgcc aacaggaatg 120
 aaattttggc cttctgtca aggatcgaag ccaagggcaa gggcatcctg caacaccacc 180
 aggtcattgc tgagtttgag gaaatccctg aggagaacag acagaagctc act 233

<210> 2563

<211> 262
 <212> nucleic acid
 <213> Glycine max

 <400> 2563

 gttcattctg ttttcttgaa gtctttccct agccaatggc cactgatcgt ttgacccggg 60
 ttcacagtct ccgtgagagg cttgatgaaa ccctcactgc caacaggaac gaaattttgg 120
 cccttctgtc aaggtcgaag ctaagggcaa ggggatcctg caacaccacc aggtcattgc 180
 tgagtttgag gaaatccctg aggagaacag gcagaagctt actgatggtg cctttggaga 240
 agtcttgaga tctacacagg aa 262

<210> 2564
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2564

 gcgttcattc tgttttctg ttgaagtctt tccctagcca atggccatcg atcgtttgac 60
 ccgggttcac agtctccgtg agaggcttga tgaaaccctc actgccaaaca ggaatgaaat 120
 tttggccctt ctgtcaagga tcgaagccaa gggcaagggc atcctgcaac accaccaggt 180
 cattgctgag tttgaggaaa tccctgagga gaacagacag aagctcactg atggtgc 237

<210> 2565
 <211> 268
 <212> nucleic acid
 <213> Glycine max

 <400> 2565

 ctttacaccc ccctctctat tttgcgttca ttctgttttc cagttgaagt ctttccctag 60
 ccaatggcca ctgatcggtt gaccgggtt cacagtctcc gtgagaggct tgatgaaacc 120
 ctactgcca acaggacgaa attttggccc ttctgtcaag gatcgaagct aagggaagg 180
 ggatcctgca acaccaccag gtcattgctg agtttgagga aatccctgag gagaacaggc 240
 agaagcttac tgatggtgcc tttggaga 268

<210> 2566
 <211> 268
 <212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (21), (228), (256), (264), (266)

<223> unsure at all n locations

<400> 2566

cttctcttta cccccccctc ncctattttg cgttcattct gttttccagt tgaagtcttt 60
ccctagccaa tggccaactga tcgtttgacc cgggttcaca gtctccgtga gaggcttgat 120
gaaaccctca ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag 180
ggcaagggga tcctgcaaca ccaccaggtc attgctgagt ttgagganat ccctgaggag 240
aacaggcaga agcttnctga tggngnct 268

<210> 2567

<211> 237

<212> nucleic acid

<213> Glycine max

<400> 2567

cgttcattct gttttcctgt tgaagtcttt ccctagccaa tggccaccga tcgtttgacc 60
cgggttcaca gtctccgtga gaggcttgat gaaaccctca ctgccaacag gaatgaaatt 120
ttggcccttc tgtcaaggat cgaagccaag ggcaagggca tcctgcaaca ccaccaggtc 180
attgctgagt ttgaggaaat ccctgaggag aacagacaga agctcactga tggtgcc 237

<210> 2568

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 2568

cttctcttta cccccccctc tctattttgc gttcattctg tcttcttgaa gtctttccct 60
agccaatggc cactgatcgt ttgaccggg ttcacagtct ccgtcagagg cttgatgaaa 120
ccctcactgc caacaggaac gaaattttgg cccttctgtc aaggatcgaa gctaagggca 180
acgggatctt gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
ggcagaagct tactgatggt g 261

<210> 2569
 <211> 263
 <212> nucleic acid
 <213> Glycine max

 <400> 2569

 acacccccct ctctattttg cgttcattct gttttacagt tgaagtcttt ccatagccaa 60
 tggccactga tcgtttgacc cgggttcaca gtctccgtga gaggcttgat gaaaccctca 120
 ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag ggcaagggga 180
 tcttgcaaca ccaccaggtc attgctgagt ttgaggaaat cctgaggaga acaggcagag 240
 cttactgatg gtgctatgga gaa 263

<210> 2570
 <211> 229
 <212> nucleic acid
 <213> Glycine max

 <400> 2570

 ctgttttcca gttgaagtct ttccctagcc aatggccact gatcgtttga cccgggttca 60
 cagtctccgt gagaggcttg atgaaaccct cactgccaac aggaacgaaa ttttggccct 120
 tctgtcaagg atcgaagcta agggcaaggg gatcctgcaa caccaccagg tcattgctga 180
 gtttgaggaa atccctgagg agaacaggca gaagcttact gatggtgcc 229

<210> 2571
 <211> 265
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (90)
 <223>

 <400> 2571

 cttctcttta cccccctc tctattttgc gttcattctg ttttccagtt gaagtctttc 60
 cctagccaat ggccactcga tcgtttgacn cggggtcaca gtctccgtga gaggcttgat 120
 gaaaccctca ctgccaacag gaacgaaatt ttggcccttc tgtcaaggat cgaagctaag 180
 ggcaagggga tcttgcaaca ccaccaggtc attgctgagt ttgaggaaat ccctgaggag 240

aacaggcaga agcttactga tgggtg

265

<210> 2572
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2572

gttcattctg ttttcttgaa gtctttccct agccaatggc cactgatcgt ttgaccgagg 60
ttcacagtct ccgtgagacg cttgatgaaa ccctcactgc caacaggaac gaaatttttg 120
cccttctgtc aaggatcgaa gctaaggga aggggatcct gcaacaccac caggtcattg 180
ctgagtttga ggaaatccct gaggagaaca ggcagaagct tactgatggt gcctttggag 240
aagtcttgag atctacacag gaag 264

<210> 2573
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 2573

ctttataccc cccctctctt tttttgcgtt cattctgttt tcctgttgaa gtctttccct 60
agccaatggc caccgatcgt ttgaccgagg ttcacagtct ccgtgagagg cttgatgaaa 120
ccctcactgc caacaggaat gaaatttttg cccttctgtc aaggatcgaa gccaaggga 180
agggatcct gcaacaccac caggtcattg ctgagtttga ggaaatccct gaggagaaca 240
gacagaagct ca 252

<210> 2574
<211> 242
<212> nucleic acid
<213> Glycine max

<400> 2574

ctctttatac cccctctctt tttttgcgt tcattctgtt ttctgttgaa agtctttccc 60
tagcaaattg ccaccgatcg tttgaccagg gttcacagtc tccgtgagag gcttgatgaa 120
accctcactg ccaacaggaa tgaaattttg ggccttctgt caaagatcga agccaaggga 180
caaggcatcc tgcaacacca ccaggtcatt gctgaatttg aggaaatccc tgaggagaac 240

ag

242

<210> 2575
 <211> 269
 <212> nucleic acid
 <213> Glycine max

<400> 2575

tctttatata ccccggecgt tgtgtgcggt cattctgttt tgctgttgaa gtcggtccta 60
 gccagtgggc accgatcggt tgacccgggt tcacagtctc cgtgagaggc ttgatgaaac 120
 cctcactgcc aacaggaatg aaattttggc ccttctgtca aggatcgaag ccaagggcaa 180
 gggcatcgtg caacaccacc aggtcattgc tgagtttgag gaaatccctg atgagaacag 240
 acagaagctc actgatggtg cctttggag 269

<210> 2576
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2576

attcggtcgt agcttctctt tacaccccc tctctatttt gcgttcactc tgtattccag 60
 ttgacgtctt tccctagcca atggccactg atcgcttgac ccgggttcac agtctccgtg 120
 agaggcttga tgataccctc actgccaaca ggatcgaat tttggccctt ctgtcaagga 180
 tcgaagctaa gggcaagggg atcctgcaac accaccaggt cattgctgag tttgaggaaa 240
 tccctgagga gaaca 255

<210> 2577
 <211> 142
 <212> nucleic acid
 <213> Glycine max

<400> 2577

acccccctct ctattttggt ttcattctgt tttccagttg aagtctttcc ctagccaatg 60
 gccactgacg gtttgaccgg ggttcacagt ctccgtgaga ggcttgatga aaccctcact 120
 gccaacagga acgaaatttt gg 142

<210> 2578

<211> 158
 <212> nucleic acid
 <213> Glycine max

<400> 2578
 ctttacaccc cctctctatt ttgcgttcat tctgttttcc agttgaagtc tttccctagc 60
 caatggccac tgatcgtttg acccgggttc acagtctccg tgagagggtt gatgaaaccc 120
 tcactgccaa caggaacgaa attttggccc ttctgtca 158

<210> 2579
 <211> 132
 <212> nucleic acid
 <213> Glycine max

<400> 2579
 cttctcttta cccccctc tctattttgc gttcattctg tttaccagtt gaagtctttc 60
 cctagccaat ggccactgat cgtttgaccc gggttcacag tctccgtgag aggcttgatg 120
 aaaccctcac tg 132

<210> 2580
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2580
 gtgcccttga aaatgagatg ctccttcgga tcaagaaaca gggacttgat ttcactccaa 60
 gaattcta atgtaccagg ttaatacctg atgcaaagg gacaacatgc aaccagcggc 120
 tagaaagagt cagtgggtact gaccatactc atattttgcg agttccattc agatcagagt 180
 caggaactct ccgtaaatgg atttcaaggt ttgatgtgtg gccttatcta gagacttatg 240
 cagaggatgt tgccagtga 259

<210> 2581
 <211> 221
 <212> nucleic acid
 <213> Glycine max

<400> 2581
 tgatttcact ccaagaattc taatagttac caggttaata cctgatgcaa aggggacaac 60

<211> 391
 <212> nucleic acid
 <213> Glycine max

<400> 2584

tacggctgcg agaagacgac agaaggggga agagaaggcc gagatgaaga agatgtacgg 60
 cctgatcgag acctacaagt tgaacgggca attcagatgg atttcatctc agatgaaccg 120
 tgtgaggaac ggagagctgt accgtgtgat ctgcgacacc aaggagctt tcgtgcagcc 180
 ggctatatac gaggcttttg gtttgacagt ggttgaggcc atgacttgtg ggttgccaac 240
 attcgccaca tgcaatggtg gtcctgctga gatcattgtg catggcaagt ctggcttcca 300
 cattgaccct taccatggtg accgtgctgc tgatctcctt gttgacttct ttgagaagtg 360
 caagcttgac ccaaccact gggaaacaat c 391

<210> 2585
 <211> 398
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (382), (389)
 <223> unsure at all n locations

<400> 2585

cccacgcgtc cgcccacgcg tccgcccacg cgtccgcca cgcgtccgcg gctgcgagaa 60
 gacgacagaa ggggtacggc ctgatcgaga cccacaagtt gaacggccaa ttcagatgga 120
 tttcatcgca gatgaaccgt gtgaggaatg gagagctcta ccgctgac tgcgacacca 180
 ggggtgcttt cgtgcagcct gctgtatacg aggcttttgg tttgacagtg gttgaggcca 240
 tgacttgagg cttgccaaca ttcgccacat gcaatggtgg tcctgctgag atcattgtgc 300
 acggcaagtc tggtttccac attgaccctt accatggtga ccgtgctgct gatctccttg 360
 ttgacttctt tgagaagtgc angettgan ccaactcac 398

<210> 2586
 <211> 415
 <212> nucleic acid
 <213> Glycine max

<220>

<221> unsure
 <222> (350)
 <223>

<400> 2586

gttcgtgcct tggagaatga gatgctcaac cgcatacaaga agcaaggcct tgatatcacc 60
 cctcgtattc tcattattac tcgtcttctc cctgatgcag taggaactac ctgtggccaa 120
 cgtctagaga gggatatatga tactgaatat tgtgacattc tccgagttcc tttcagaacc 180
 gaaaaggga ttgttcgcaa atggatctca agattcgaag tctggccata cctagagact 240
 tacactgagg atgttgccct tgaacttgcc aaggagttgc aagccaagcc agatctgac 300
 gttggaaact acagtgatgg aaacattggt gcctctttgt tagcacatan attaggagta 360
 actcagtgtg ccattgctca tgctctagaa aagaccaagt accctgagtc tgaca 415

<210> 2587
 <211> 403
 <212> nucleic acid
 <213> Glycine max

<400> 2587

gaaatatcat ttctcatgcc aatttactgc tgatcttttt gcaatgaacc acacagactt 60
 tatcatcacc agcaccttcc aagagattgc tggaagcaag gacactgttg gacagtatga 120
 gagtcacact gccttcaccc ttccaggact ttaccgtgtt gttcacggta ttgatccatt 180
 tgatccaaag ttcaacattg tctctcccgg tgcagacatg ggtatatact tcccatacac 240
 tgaaactgag cgtagggttaa cagaattcca ctctgacatt gaagagcttc tttacagctc 300
 agtggagaat gaggaacaca tatgcgtatt gaaggaccgc aacaaaccaa taatcttcac 360
 catggcaagg cttgaccgtg tgaagaacaa cacggggcctt gtc 403

<210> 2588
 <211> 417
 <212> nucleic acid
 <213> Glycine max

<400> 2588

acgtacggct gcgagaagac gacagaaggg gatggaaaca ttgttgccctc tttgttagca 60
 cataaattag gagtaactca gtgtaccatt gctcatgctc tagaaaagac caagtaccct 120

66370 4342660

gagtctgaca tttactggaa aaaatttgaa gagaaatatac acttctcatg ccaatttact 180
 gctgatcttt ttgcaatgaa ccacacagac tttatcatca ccagcacctt ccaagagatt 240
 gctggaagca aggacactgt tggacagtat gagagtcaca ctgccttcac ccttccagga 300
 ctctaccgtg ttgttcacgg tattgatccc tttgatccaa agttcaacat cgtctcttcc 360
 ggttgccgac atgagcataa acttcgcata cactgaaact gagegtaggt taacaga 417

<210> 2589
 <211> 455
 <212> nucleic acid
 <213> Glycine max

<400> 2589

caggtacacg tggaagattt attccgaaag gcttatgact ttggcgggag tttatagttt 60
 ctggaaatgc gtttccaaat tagagaggcg tgaaactoga cgatatcttg agatgttcta 120
 tatectcaag ttccgtgatt tggcaaattc tgttccgcta gctaaggatg atgcaagtta 180
 actagctata taatttcacc aaaggcttga cagcagacat aataagagtc atttatgtaa 240
 atataatagt ctgcttctcg tgttttgaaa tctagtgagg cgacctagag gagtttcatg 300
 gaagacttgt cttgtctatg ttaacttoga ttatgtaaga gatggcgagc actggttggt 360
 gaatttggat gtctcttggt ttcgtttgat tagtagtcat caatgatata gacctggaaa 420
 ttacctgtga cttgaggatg ttatccttac tgatg 455

<210> 2590
 <211> 381
 <212> nucleic acid
 <213> Glycine max

<400> 2590

gttcattctg ttttccagtt gaagtctttc cctagccaat ggccactgat cgtttgaccc 60
 gggttcacag tctccgtgag aggccttgatg aaaccctcac tgccaacagg aacgaaattt 120
 tggcccttct gtcaaggatc gaagctaagg gcaaggggat cctgcaacac caccagggtca 180
 ttgctgagtt tgaggaaatc cctgaggaga acaggcagaa gcttactgat ggtgcctttg 240
 gagaagtctt gagatctaca caggaagcca tagttttgcc accatggggtt gctctggctg 300
 ttcgtccaag gcctgggtgtg tgggagtacc tgaaagtgaa tgtgcacgct cttgttgttg 360

aggagttgca acctgctgag t

381

<210> 2591
<211> 276
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (207), (217), (226), (228) ... (229), (231), (233) ... (234),
(237), (239) ... (240), (243), (265) ... (266)
<223> unsure at all n locations

<400> 2591

gttgatgcta ttatcaagtg tcaaggtcct cctacaacat caggatacat ggttgtaaat 60

atggaatggg gaaacttttg gtcattctcat ttaccaagaa catcttatga tattgattta 120

gactctgaaa gccctaattc aaatgatcag ggttttgaga aaatgatatc tggaatgtat 180

cttggtgaca tcgtgaggag agtcatncta aggatgncgc tagagncnnt ntnnctngnn 240

ccnattcttc caaactttca agccnntatg ctgagg 276

<210> 2592
<211> 153
<212> nucleic acid
<213> Glycine max

<400> 2592

gttgaagaag cctactctc tcgacgctc tttcctctcc gacatcgaga acgaccctt 60

cgagaacctg caagagactc acgatatctt cgtcaaccag atgggtatca agccattgg 120

gcttaagtta gagtttccgg ggggttttcg aaa 153

<210> 2593
<211> 223
<212> nucleic acid
<213> Glycine max

<400> 2593

ccgggcttcc catgatacc agctatgttg aaaatcttcc cactgggaat gagaaaggg 60

tgttttatgc cttggatctc ggaggaacca acttccgtgt gctgaggggtg cagttgggtg 120

gcaaagatga gcgtgtcatt gccaccgagt ttgatcaagt ttccatacct catcaactca 180

tgtttgctac atctcaggag ctgtttgatt tcattgcttc ggg

<210> 2594
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<400> 2594
 tgcacgcggg tcttgcttct gaaggtggca gcaagctcaa gatgttgatc acttatgttg 60
 ataatctccc ttctggggat gagaaaggac tcttttatgc attagacctt ggtggcacia 120
 acttccgaac ccttcgcgtg catttaggtg ggaaggagaa aggtgttgtc aaaatagagt 180
 ctgatgaagt ttccattcct cctcatttga tgactggctc ttcacaagaa ttatttgatt 240
 ttatagcatc taaacta 257

<210> 2595
 <211> 246
 <212> nucleic acid
 <213> Glycine max

<400> 2595
 atttgatgac tgggttcttca caagaattat ttgattttat agcatctaaa ctagcaaaat 60
 tcgttagttc tgagcctgaa gagttacacc ctccccctgg cagacaaagg gaattgggtt 120
 ttaccttctc atttccagtg aggcaaacat caattgcatc tgggaatata ataaagtgga 180
 ctaaagggtt caatcttgag gatgcggttg gagaagatgt ggtgggtgaa ctgaccaagt 240
 ccttag 246

<210> 2596
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2596
 gcagattcta caatcaggat gtcattgctg ctgtgattct tggactggg acaaatgcag 60
 catatgtaga acgagcacat gctattccaa aatggcatgg gcttatacca aaatcaggag 120
 atatggttat aaacatggag tggggatttt ccgatcatca catcttctc taacagaata 180
 tgatctagct ccggatgctc agagcttaaa ccctggagaa cagatttttg agaaattgat 240

ttctggcatg tatttggggg aa

262

<210> 2597
<211> 254
<212> nucleic acid
<213> Glycine max

<400> 2597

atcggttggg aggctgaggc aggtggtgga tgctatggcc gttgagatgc acgctgggtt 60
ggcatcagaa ggtggttcca agctcaaaat gcttctcaca tatgttcata atctccctaa 120
tgggactgag aaaggaacat attatgcact agatcttggg ggtactaatt ttcgggtttt 180
gcgggttcat ttgcatggtc aacaatcttc tgttttggaa catgaagtag agcgacaccc 240
attcctcaaa atct 254

<210> 2598
<211> 267
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (254)
<223>

<400> 2598

ctcccatcag aggacaaagc ttccgacttt gcgggattcg ttcgtatttg tttcagtgct 60
gtgatgggga aggtcgcggt gggagctgcc gttgtctgcg ccgccgccgt atgcgctgcg 120
gcggcgctgg tgggtgcgcca ccgcatgatt cgttcccga agtggagtcg cgccatggcg 180
atactgaagg agtttgagga gaagtgtggc accccaattg tgaagctaag acaagtgcgc 240
tgatgccatg gatnttgaga tcacgcg 267

<210> 2599
<211> 252
<212> nucleic acid
<213> Glycine max

<400> 2599

gttacaccct cccctggca gacaaaggga actgggtttt acattctcat ttccagtga 60
gcaaacatcc atagcatctg ggactctaataaagtggaact aaagggtttca atattgagga 120

tgcggttgga gaagatgtgg tgggtggact aaccaagtcc ttagaaaaaa ttggtctgga 180
 tatgcgtggt gcagctctag ttaatgacac agttggaact gtggctagag ctagattcag 240
 caatcaggat gt 252

<210> 2600
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2600

tgaagatgcy gttggtgaag atgtggtggg agaactaacc aagtccatgg aaaaaattgg 60
 cctggatatg cgcgttgctg ctctagtcag tctcactctc ctctcttttg gatttcttta 120
 ttttttatag ccggatttga gcatgatggt ttccagtttg tgtctgacag aaatttggag 180
 ttataagggt aatgatacca ttggaacatt agctggaggc agattctaca atcaggatgt 240
 cattgctgct 250

<210> 2601
 <211> 252
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (238), (242), (248)
 <223> unsure at all n locations

<400> 2601

gatatattag agatcaataa cacatccctg aaaatgagga agattgttgt ggaactctgt 60
 gatattgttg ctaatcgggg agcccgcctt tctgctgctg gtatttttgg catcctcaag 120
 aaaataggaa gagacacagt aaaggacggg aagaaatcag tagtagcact ggatggagga 180
 ttgtttgaac actatactaa ttcagagttc cttggagagt acaaaaagggt ttttgggnaa 240
 cnccccnac ca 252

<210> 2602
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2602
 cgataatctc ccaactgggg atgaggaagg cctctattat gcattggatc ttggcggcac 60
 aaacttccgt gtccttcgtg tacatttagg ggggaaagac aaaggtgtta tcggccagga 120
 gtttgaagaa gtttcaattc ctccaaattt gatgactggc tcttcagatg cattgttcga 180
 ttttatagca gcaggctctg caaagtttgt tgggtcagaa ccctgaagggt ttcattctcc 240
 cctgggaaga caagaggact gggtttac 268

<210> 2603
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2603
 attttgggca tccttaagaa aataggaaga gacacgggta aggttgggga gaagcaaaag 60
 tcagtgatag ctttggatgg gggattgttt gaacactaca ccaaatttag agaatgcttg 120
 gagggtagcc tgaaggaatt gctgggagat gaggctgctg agaccattgt cattgagcat 180
 gctaataatg gctctggcat tgggtgcagcc ctctggcag cttctcactc ccaatatttg 240
 ggagtggagg agtcttaaata tttattgc 268

<210> 2604
 <211> 224
 <212> nucleic acid
 <213> Glycine max

<400> 2604
 ctcaaacaca tcccttaaaa tgaggaagat cgttgttgaa ctgtgtgaca ttgttgctac 60
 tcgaggagct cggttgctg ctgctggtat tttgggcac ctaagaaaa taggaagaga 120
 cacagttaag gttggggaga agcaaaagtc agtgatagcg ttggatgggg ggttgtttga 180
 aactacacc aaatttagag aatgcttgga gagtgcactg aagg 224

<210> 2605
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2605

cgatctgcac gctgggttgg catcagaagg tggttctaaa ctcaaaatgc ttataacatt 60
 tgttcataat ctccctaata ggactgagaa aggaacatat tatgcactag atcttggggg 120
 tacaaatfff agggttttgc gggttcattt gcatggtcaa caatcgtctg ttttggaaaca 180
 tgaagtagag cgacagccca ttctcaaca tctaatagacc agcacaagtg aggatctctt 240
 tgatttcctt gcttcttcat taaag 265

<210> 2606
 <211> 266
 <212> nucleic acid
 <213> Glycine max
 <220>
 <221> unsure
 <222> (189)...(190)
 <223> unsure at all n locations

<400> 2606
 accaagtcca tggaaaaaat tggcctggat atgcgcgttg ctgctctagt taatgatacc 60
 attggaacat tagctggagg cagattctac aatcaggatg tcgttgctgc tgtgattctt 120
 ggtactggga caaatgcagc atatgtagaa cgtgcacatg ctattccaaa atggcatggc 180
 cttataccnn aatcaggaga tatggttata aacatggagt ggggtaattt ccgatcatca 240
 catcttcttc taacagaata tgatct 266

<210> 2607
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2607
 gtttgaaaaa tctgtcccg cagacactatc tacacctttc atactcggga cctcagatct 60
 atgtgccatg caacaggact gttctggcga ttacatgca gttgggtctc tcctctacga 120
 taaagcaggg gttgaatcca atttaagtga aagagaaaca gttttggagg tttgtgagac 180
 tattgtaaag cgaggcggga gcttagctgg tgcaggaata gtggggattc tacaaaaaat 240
 ggaagaggac cagagaggtc t 261

<210> 2608
 <211> 268

<212> nucleic acid

<213> Glycine max

<400> 2608

tctcgagccg ctcgagccgc ggctcgagaa ttgttagacg agtgcacgct ggaaatggct 60

gaagacggtg acctgttttg aaaatctatc ccgcagacac tatctacacc tttcatactc 120

gggacctcag atctatgtgc catgcaacag gactgttctg gcgatttaca tgcagttggg 180

tctctcctct acgataaagc aggggttgaa tccaatttaa gtgaaagaga aacagttttg 240

gaggtttgtg agactattgt aaagcgag 268

<210> 2609

<211> 261

<212> nucleic acid

<213> Glycine max

<400> 2609

caagaaaata ggaagagaca cagtaaagga cgggaagaaa tcagtagtag cactggatgg 60

aggattgttt gaacactata ctaaattcag aagttccttg gagagtacac taaaggagtt 120

gttgggagat gaggcagctg agacaattgg cattgagcag tctaatagatg gctctggaat 180

tggagcagcc ctcttggcag cttctcactc ccagtatttg gaagtgcagg agtcctgaag 240

atgtgggttaa tgtcaaggta a 261

<210> 2610

<211> 264

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (5), (24), (31), (38) ... (39), (42), (53) ... (54), (99), (111),
(132), (144), (224), (227)

<223> unsure at all n locations

<400> 2610

cgggnagaaa tcagtagtag cacngcatgg nggattgnnc cnacactata ctnn cattca 60

gaagttcctt ggagagtaca ctaaaggagt tggtgggcnt gaggcagctg ngacaattgg 120

cattgagcag tntaatgatg gctncggaat tggagcagcc ctcttggcag cttctcactc 180

ccagtatttg gaagtgcagg agtcctgaag atgtgggtta atgncanggt aaatcagtgt 240

aacatagttt cattttttga tacc

264

<210> 2611
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2611

cccaaattga aagttccttt cataacttagg acgcctgaca tgtcagccat gcaccatgac 60
acaagttctg atctgaaagt ggttggaac aagttaaagg atatattaga gatctcaaac 120
acatccttaa aatgaggaag atcgttggtg aactgtgtga cattgttgct actcgcggag 180
ctcggcttgc tgctgctggt attttgggca tccttaagaa aataggaaga gacacagtta 240
aggttgg 247

<210> 2612
<211> 247
<212> nucleic acid
<213> Glycine max

<400> 2612

gaagttgtaa ggagagcttt attgaagatg gccgaagaag ctgacttttt tggcgatact 60
gtgcccccca aattgaaagt tcctttcata cttaggacgc ctgacatgtc agccatgcac 120
catgacacaa gttctgatct gcaagtgggt ggaaacaagt taaaggatat attagagatc 180
tcaaacacat cccttaaaat gaggacgac gttgttgaac tgtgtgacat tgttgctact 240
cgcgag 247

<210> 2613
<211> 278
<212> nucleic acid
<213> Glycine max

<400> 2613

cggtctgagt tcacagattt ttgagaaatt gatttctggc atgtatttgg gggaaattgt 60
aaggagagct ttatttaaga tggccgaaga agctgatttt tttggagata ctgttcccc 120
caaattgaaa gttcctttca tacttaggac gcctgacatg tcagccatgc accatgacac 180
aagttctgat ctgaaagtag ttggaaacaa attaaaggat atattagaga tctctaacac 240

atccctaaaa atgaggaaga ttgttggtga actgtgtg

278

<210> 2614
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2614

tgcccaaaat accagcagca gcaagccgag ctccgcgagt agcaacaatg tcacacagtt 60
caacaacgat cttcctcatt ttaagggatg tgtttgagat ctctaataata tcctttaact 120
tgtttccaac cactttcaga tcagaacttg tgatcatggtg catggctgac atgtccaggc 180
gtcctaaga aaattatgtc agaactccaa aagctctatt tcaacaaaag gtaatgtgtt 240
caaatgaag 249

<210> 2615
<211> 255
<212> nucleic acid
<213> Glycine max

<400> 2615

ggtcgcgtgg tggctattgt gaaagagttt gaggagcagt gtaggacccc aattgggaag 60
ctgagacagg ttgctgacgc catggacgtt gagatgcacg cgggtcttgc ttctgaaggt 120
ggcagcaagc tcaagatgtt gatcacttat gttgataatc tcccttctgg ggatgagaaa 180
ggactctttt atgcattaga ccttggtggc acaaacttcc gaacccttcg cgtgcattta 240
ggtggaagg agaaa 255

<210> 2616
<211> 248
<212> nucleic acid
<213> Glycine max

<400> 2616

ggggcggcgt gtgctgcggt ggcgctggtg gtgcgaccg atgatgagct ccggaaagtg 60
gggtcgcgtg ttggctattg tgaaagagtt tgaggagcag tgtaggaccc caactgggaa 120
gtgagacag ttgctgacg ccatggacgt tgagatgcac gcgggtcttg cttctgaagg 180
tggcagcaag ctcaagatgt tgatcactta tggtgataat ctcccttctg gggatgagaa 240

aggatcctt

<210> 2617
 <211> 263
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (214)
 <223>

<400> 2617

atgaggagct ccggaagtg gggtcgctg gtggctattg tgaaagagtt tgaggagcag 60
 tgtaggaccc caattgggaa gctgagacag gttgctgacg ccatggacgt tgagatgcac 120
 gcgggtactg cttctgaagg tggcagcaag ctcaagatgt tgatcactta tgttgataat 180
 ctccctctgg ggatgagaaa ggactcttta tgcnttagac ctggtggcac aaacttccga 240
 accctcgctg cattagtggg aag 263

<210> 2618
 <211> 143
 <212> nucleic acid
 <213> Glycine max

<400> 2618

cagtgttgga ccccaatttc gaagctgaga caggttgctg atgccctgga cgttgagatg 60
 cacgctgggc ttgcttctga aggtggatgt aagctcaaga tgttgatcac ttatgttgat 120
 aatctccctt ctggggatga gaa 143

<210> 2619
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (12), (31), (33), (54), (62)
 <223> unsure at all n locations

<400> 2619

cgtcgcttg cncggcggcg gcgtgtgctc ncngtggcgc tgggtggtgcg ccancgcatg 60

angagctccg gaaagtgggg tcgctggtg gctattgtga aacagtttga ggagcagtgt 120
aggaccccaa ttgggaagct acgacagttg ctgacgccat ggacgttgag atgcacgcgg 180
gtcttgcttc tgaaggtggc agcaagctca agatgttgat cacttatgtt gataatctcc 240
cttctgggga tgagaaagga ctcttttatg cattagacc 279

<210> 2620
<211> 289
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (63), (75), (88), (101), (199), (203)
<223> unsure at all n locations

<400> 2620

catcaattgc atctgggaat ataataaagt ggactaaagg tttcaatatt gaggatgcgg 60
ttngagaaag atgtngtggg tgaactgncc aagtccttag naaaaaattgg tctggatatg 120
catgttgcag ctctagttaa tgacacagtt ggaacagtgg ctagagcaag attcagcaat 180
caggatgtca ttgctggant gantcttggc actgggacaa atgcagctta tgtagagtgt 240
gcacatgcaa ttccacaatg gcatggtctt ctacaaaaat caggagacc 289

<210> 2621
<211> 264
<212> nucleic acid
<213> Glycine max

<400> 2621

actcgagccg attcggctcg agtgaggatg cggttggaga agatgtactg ggtggactaa 60
ccacagtctt agaaaaaatt ggtctggata tgcgtgttgc agctctagtt aatgacacag 120
ttggaactgt ggctagagct agattcagca atcaggatgt cattgctgga gtgattcttg 180
gtacagggac aaatgcagct tatgtagagt gtgcacatgc aattccaaaa tggcaaggtc 240
ttotaccaa atcaggagag atgg 264

<210> 2622
<211> 270
<212> nucleic acid

<213> Glycine max

<400> 2622

gagaacagat ttttgagaag ataatttctg gtatgtattt gggtgaaatt gtaaggagag 60
ttttgttgaa gttggctgaa gaagttgact tctttggaga tactgttcct ccaaaaattga 120
gaattccttt cgtacttagg acacctgaca tgtctgcaat acatcaagat acatcttcag 180
atctgaaggt ggttggaaac aaattgaagg atatattaga gatcaataac acatccctga 240
aaatgaggaa gattgtttgtg gaactctgtg 270

<210> 2623

<211> 273

<212> nucleic acid

<213> Glycine max

<400> 2623

atttctggta tgtatttggg tgaaattgta aggagagttt tgttgaagtt ggctgaagaa 60
gttgacttct ttggagatac tgttcctcca aaattgagaa ttcctttcgt acttaggaca 120
cctgacatgt ctgcaataca tcaagataca tcttcagatc tgaagggtgg tggaaacaaa 180
ttgaaggata tattagagat caataacaca tccctgaaaa tgaggaagat tgttgtggaa 240
ctctgtgata ttgttgctaa tcggggagcc cgc 273

<210> 2624

<211> 267

<212> nucleic acid

<213> Glycine max

<400> 2624

cagagaggtc tcgtcttttg gaatgggaag agaagtgttg ttgccattga tgggggctta 60
tatgaaaatt atcctcaata cagggttat ttgcaagatt cagtcacaga gctgctagga 120
acagaaaagt caaacaatgt ggtgatagag catactaaag atggatctgg aataggagct 180
gctctatttg ctgcttcaaa ctccatgtac aaccaagact tatagtccat tatcatgcaa 240
ataaaaattg aaggaataat ccatttt 267

<210> 2625

<211> 280

<212> nucleic acid

<213> Glycine max

<400> 2625

cagagagggtc tcgtcttttg gaatgggaag agaagtgttg ttgccattga tgggggctta 60
tatgaaaatt atcctcaata cagggcttat ttgcaagatt cagtcacaga gctgctagga 120
acagaaaagt caaacaatgt ggtgatagag catactaaag atggatctgg aataggagct 180
gctctatttg ctgcttcaaa ctccatgtac aaccaagact tatagtccat tatcatgcaa 240
ataaaaattg aaggaataat ccatttttcc ttttgtatat 280

<210> 2626

<211> 248

<212> nucleic acid

<213> Glycine max

<400> 2626

ttgaaaacaa gtccacagta cttttttatg gtggtggggc tttagttgct gtttggctat 60
cgtcgattct tgtgagcgcc atcaactctg ttcccttgct tccaaagatt atggagttgg 120
tggggctagg gtacactgga tggtttgtct accgatacct tctgtttaag tctagcagga 180
aggagctagc tacagacatt gagtcactga agaagaaaat tactggaact gaatagagtg 240
gtgttagc 248

<210> 2627

<211> 234

<212> nucleic acid

<213> Glycine max

<400> 2627

cttatcttcc ctcaaccact tctcagtgtc ccgaaaatct tctcaccttc agaccagagc 60
ttcttcagag gaatcatcct cagtagatgc caatgaggtg ttcacagatt tgaaggaaaa 120
gtgggatgct cttgaaaaca agtccacagt acttttttat ggtggtgggg ctttagttgc 180
tgtgtggcta tcgtcgattc ttgtgagcgc catcaactct gttcccttgc ttcc 234

<210> 2628

<211> 430

<212> nucleic acid

<213> Glycine max

<400> 2628

aatgacacag ttggaacagt ggctagagca agattcagca atcaggatgt cattgctgga 60

gtgatccttg gtacggggac aaatgcacct tatgtagagt gtgcacatgc aattccaaaa 120

tggcatggtc ttctaccaa atcaggagag atggttatta acatggagtg gggtaatttc 180

cgttcctcgc atcttcctct aacagaatat gatcatgctc tagatgcaga gagcttaaac 240

cctggagaac agatTTTTga gaagataatt tctggatatgt atttgggtga aattgtaagg 300

agagttttgt tgaagttggc tgaagaagtt gacttctttg gagatactgt tcctccaaaa 360

ttgagaattc ctttcgtact taggacacct gacatgtctg caatacatca agatacatct 420

tcagatctga 430

<210> 2629

<211> 413

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (362)

<223>

<400> 2629

agcccacgcg tccgtacggc tgcgagaaga cgacagaagg gggttgatgg ggggttggtt 60

gaacactaca ccaaatttag agaatgcttg gagagtgcac tgaaggaatt gctgggagat 120

gaggctgctg agaccattgt cattgagcat gctaattgatg gctctggcat tgggtgcagcc 180

ctcctggcag cttctcactc ccaatatttg ggagtggagg agtcttaa at tttattgcc 240

aacaagggaa agacgtgtaa tactagtttc attttttgca taggtggtag atcaacacat 300

tgaagcaatg gtgccttgca gctggtgact gggggggcat tcattatttt ggtttcagt 360

tntgtttctc cctcgtttaa gggaaatat caaagatata aacttcacct tga 413

<210> 2630

<211> 402

<212> nucleic acid

<213> Glycine max

<400> 2630

tgctaatacg ggagcccgcc tttctgctgc tggatattttt ggcacccca agaaaatagg 60

ctcttgaaaa caagtccaca gtacttcttt atggtggaag ggctatagtt gctatttggc 360
tattgtcaat tcttgtgagc gccatcaact cagttccctt 400

<210> 2633
<211> 413
<212> nucleic acid
<213> Glycine max

<400> 2633

gatagataga gtgatacaca tcacatcttc tcaaagtaag ttattaatta ataaataaat 60
ggcggcgggc ggcgcagtga cgggtgctact cccacctagg attccgaccg ccaccaacgt 120
taccgcgtgc tctgctttgc cttctctgcc tcctcgcggc accaactacta aaaccacttt 180
gctcttatct tgctcaacc acttctcagt gtcccgaaaa tcttctctgc ttcagaccag 240
agcttcttca gaggaatcat cctcagtaga tgccaatgag gtgttcacag atttgaagga 300
aaagtgggat gctcttgaaa acaagtccac agtacttttt tatggtggtg gggctttagt 360
tgctgtttgg ctatcgtcga ttcttgtgag cgccatcaac tctggtccct tgc 413

<210> 2634
<211> 406
<212> nucleic acid
<213> Glycine max

<400> 2634

aaagttccaa attttttggg ttggggatag atagagtggg acgcgtcaca ttttcataat 60
aataaaaaaa tggcagcggc ggcgcagtga acgggtgctac tcccacctag gattccgacc 120
accaccaacg ttaccgcgtg ctctgctttg cttctctctc ctctcgcggt ctccaacacc 180
aaaaccactt tgttctcacc ttccctcaac aacttttcag tgtcccgaaa atcttctctg 240
cttcagacca gagcttcttc agaggaatca tcctcagtag atgccaatga ggtgttcaca 300
gatttgaagg aaaagtggga tgctcttgaa aacaagtcca cagtacttct ttatggtgga 360
ggggctatag ttgctatttg gctatcgtea attcttgtga gcgcca 406

<210> 2635
<211> 246
<212> nucleic acid
<213> Glycine max

<210> 2638
 <211> 295
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (81), (222), (234), (237), (257), (278), (291), (293) ... (294)
 <223> unsure at all n locations

 <400> 2638

 cgccgacgga gagegtgagt tcatgttcta cagaaacccc agcgccgaca tgctgcctca 60
 ccgcccgaag atctcaatct ncgaactcat cagatctggc aaaagtattc ccattatgga 120
 tcgataagct tgatacgtgg agccatgcag attcaggcaa caccctgaag ggcaatggaa 180
 gttggccagg gaaggcaggc atggcttgc cctcttatgc ancccaaaac ctgncgngct 240
 aaaccttggt ggccctnccg gccgagcgac ggcacgtncg gcccaatacc ncnn 295

 <210> 2639
 <211> 266
 <212> nucleic acid
 <213> Glycine max

 <400> 2639

 ccaagattgt cgatgatcag tccatacttg aagatgaacc aagggttaaga gaagtactaa 60
 agtttgcaaa tgcattgtga gctattacaa ctacccaaaaa gggagcaatt ccggcccttc 120
 ccaaagagga ggctgcactg aaactgatca aagggggggtc acagaatctt ttggcaaaat 180
 gcaaaagtgc tagcatgatt tcgttttctt cccctaattgt ttaaattttc cgttggattt 240
 gcttgctata agtttaggag ggaact 266

 <210> 2640
 <211> 205
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (163)
 <223>

 <400> 2640

gtgagttctt gtttttccga aatcctagtg ctgatatgct acttcaagag tccgagcttg 60
 ataaaaatct cataaagaag gctaaaattt tccattatgg ttccatcagc ttgattgatg 120
 agccatgcaa gtctgtcat cttgtgtgta tgagatttgc tanagaatct ggttgcattc 180
 tttcgtatga tccaaatttg agatt 205

<210> 2641
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<400> 2641
 cggacttcgg ctcgaggctc atcgacttcg tccccaccgt ctctggcgtg tccctggccg 60
 agggccctgg cttcctcaag gccccggcg gcgccccgc taacgtcgcc atcgccgtgt 120
 cgcgcctcgg cggcaaagcc gccttcgtcg gcaagctcgg cgacgacgag ttcggccaca 180
 tgctcgccgg aatcctcaag gaaaacggcg ttcgcgccga cggcatcaac tttgaccagg 240
 gcgcacgcac cgccctggcc ttcgtgaccc tacgcgccga cgggga 286

<210> 2642
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2642
 cttctatctc tgcaattcaa acacaaaaac catggcttcc actaatgctc ttcctccac 60
 cggcaacggc ctcatcgtga gtttcggcga gatgctcatc gacttcgttc ccaccgtctc 120
 cggcgtgtcc ctgcggagg ctccgggatt cctcaaggcc cccggcggcg ccccgccaa 180
 cgttgccatc gccgtcgca gactcggtcg caaagcggcg ttcgtcggga agctcggcga 240
 cgacgagttc gggcacatgc tggccgga 268

<210> 2643
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2643
 cggctcgagc cggcgtgtcc ctgcggagg ctccgggatt cctcaaggcc cccggcggcg 60

<210>	2644
<211>	263
<212>	nucleic acid
<213>	Glycine max

<400> 2644

ccaacgctct tctcccacc ggcaacagcc tcatcgtgag cttcggcgag atgctcatcg 60
atttcgtccc caccgtctcc ggcggtgcc ttgcggaggc tccgggcttc ctcaaggccc 120
cggcgggcgc ccccgcaacg tcgccatcgc cgtcgcgagg ctcggcggaa aggcggcggtt 180
cgtcggaaaag ctcggcgacg acgagttcgg gcacatgctg gctgagatcc tgaaggagaa 240
cgacgtgcga tacgacggga tca 263

<210>	2645
<211>	247
<212>	nucleic acid
<213>	Glycine max

<400> 2645

ctcgagccgt	tctatctctg	caattcaaac	acaaaaacca	tggtttccac	taatgctctt	60
cctcccaccg	gcaacggcct	catcgtgagc	ttcggcgaga	tgctcatcga	cttcggtccc	120
accgtctccg	gcgtgtccct	cgcgagggct	ccgggattcc	tcaaggcccc	cggcggcgcc	180
ccgcccaacg	ttgccatcgc	cgtcgcgaga	ctcggcggca	aagcggcggt	cgtcgggaag	240
ctcggcg						247

<210>	2646
<211>	276
<212>	nucleic acid
<213>	Glycine max

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<220>
<221>      unsure
<222>      {153}, {181}, {201}, {215}, {236}, {258}, {266}

```

<223> unsure at all n locations

<400> 2646

actaactctc tcatcttcta cagcattctt ctgcaattca aatcaaattt tcaaaccatg 60
gettctctcca ccaacgtctt tctctccacc ggcaacggcc tcatcgtgag cttcggcgcg 120
atgctcatcg atttctctcc caccgtctcc ggngtctccc ttgcggaggc tccgggcttc 180
ntcaaggccc cggcgggcgc ncccgccaac gtcgncatcg ccgtcgcgag gctcgnccga 240
aaggcgcggt tcgtcggnaa gtcgngacg acgagt 276

<210> 2647

<211> 299

<212> nucleic acid

<213> Glycine max

<400> 2647

tacagcattc ttctgcaatt caaatcaaat tttaaacca tggttctctc caccaacgct 60
cttctctcca cgggcaacgg cctcatcgtg agcttcggcg agatgctcat cgatttcgtc 120
cccaccgtct cggcggtgtc ccttgcgagg gctccgggct tctcaaggc ccccgggcgc 180
gcccccgcca acgtcgccat cgccgtcgcg aggctcggcg gaaaggcggc gttcgtcgga 240
aagctcggcg acgacgagtt cgggcacatg ctggctggaa cctgaaggag aacgacgtc 299

<210> 2648

<211> 277

<212> nucleic acid

<213> Glycine max

<400> 2648

ctcgagccgc tcgtagcatt tcggcatcca aactaactct ctcattctct acagcattct 60
tctgcaattc aatcaaatt ttcaaaccat ggcttctctc accaacgctc tctctccac 120
cggcaacggc ctcacgtga gcttcggcga gatgctcatc gatttcgtcc ccaccgtctc 180
cggcggtgtc cttgcggagg ctccgggctt cctcaaggcc cccggcgcg cccccgcaa 240
cgctcgccatc gccgtcgga ggctcggcg aaaggcg 277

<210> 2649

<211> 279

<212> nucleic acid

<213> Glycine max

<400> 2649

acggctggcg agaagacgac agaagggggg agaaggctga tttgatcaag gtcagtgatg 60
cggagcttga gttcctcaca ggaagtgaca agattgatga tgaatctgct ttgtcattgt 120
ggcaccctcaa tttgaagttg ctccctgtca ctcttgggga acatggttcc agatactaca 180
ccaagagttt caaaggatcg gtagatgctt tccatgtcaa tacagttgat acaactgggtg 240
ccggtgattc ctttgttggg gctttattgg ccaagattg 279

<210> 2650

<211> 265

<212> nucleic acid

<213> Glycine max

<400> 2650

gatcaaggctc agtgatgcgg agcttgagtt cctcacagga agtgacaaga ttgatgatga 60
atctgctttg tcattgtggc accccaattt gaagttgctc cttgtcactc ttggggaaca 120
tggttccaga tactacacca agagtttcaa aggatcggtg gatgctttcc atgtcaatac 180
agttgataca actggtgccg gtgattcctt tgttggtgct ttattgccaa gattgtcgat 240
gatcagtcca tacttgaaga tgaac 265

<210> 2651

<211> 230

<212> nucleic acid

<213> Glycine max

<400> 2651

tgagcatttg ggagaaggct gatttgatca aggtcagtga tgcggacttg agttcctcac 60
aggaagtgac aagattgatg atgaatctgc tttgtcattg tggcaccctca atttgaagtt 120
gctccttgct actcttgggg aacatggttc cagatactac accaagagtt tcaaaggatc 180
ggtagatgct tgccatgcaa tacagttgat acaactgggtg cccggtgatc 230

<210> 2652

<211> 241

<212> nucleic acid

<213> Glycine max

<400> 2652
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 agtcagctca ccttgctgct atgagcattg ccaaaaactc tggttgcatt ctatcatatg 120
 atccaaattt gagattggct ctatggcctt ctgcagacgc cgctcggaaa ggcataatgg 180
 atatatggga tcaagctgat gtcataaaga taagtgagga tgagattaca tttttgactg 240
 g 241

<210> 2653
 <211> 262
 <212> nucleic acid
 <213> Glycine max

<400> 2653
 ctccatcagc ttgattgatg agccatgcaa gtcagctcac cttcctgcta tgagcattgc 60
 caaaaacctg gttgcattct atcatatgat ccaaatttga gattggctct atggccttct 120
 gcagactccg ctcggaaagg cataatggat atatgggatc aagctgatgt tataaagata 180
 agtgaggatg agattacatt tttgactggg ggtgatgatc cttatgatga taatgttgtt 240
 ttgaagaaac tttttcaccc aa 262

<210> 2654
 <211> 273
 <212> nucleic acid
 <213> Glycine max

<400> 2654
 attctcttac ccgtataaac tactattaac ttccaccaga acacgtttct ggtttcttct 60
 ggctctgcat ttaccatact ctgtttcttg gtttcaattc aatcacacac ctctttgccc 120
 tcatggccca ctttacctcc tcaggtaaat cagacaatct caccatagaa gactgtattg 180
 gaaaaagtgc gctggttgtg tgctttggtg aaattttaat agactttgtg ccaacagtgt 240
 gtggagtgtc actagctgaa gcacctgctt tca 273

<210> 2655
 <211> 272
 <212> nucleic acid
 <213> Glycine max

tggtgacaat tctggcctgc tctttgatga tcatgcaagg acagcgttgg gattttatgc 60
 tcttaagagt aatggagaac ctgaattcat gttttaccga aatccaagtt ctgatgtgct 120
 ccttcgtcct gatgaaattg atatggacct cataaagaag gccacaatat ttcattatgg 180
 ttcaaagttt gattaaggaa cctgtaggtc agctcatctt gctgcaatg 229

<210> 2659
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 2659

ctcttgggga acatgggtcc agatactaca ccaagagttt caaaggatcg gtagatgctt 60
 tccatgtcaa tacagttgat acaactgggtg ccggtgattc ctttgttggt gctttattgg 120
 ccaagattgt cgatgatcag tccatacttg aagatgaacc aagggttaaga gaagtactaa 180
 tgtttgcaaa tgcatgtgga gctattacaa ctacccaaaaa gggagcaatt ccggcccttc 240
 ccaaagagga ggctgc 256

<210> 2660
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 2660

ctgtcactct tggggaacat ggttccagat actacaccaa gagtttcaaa ggatcggtag 60
 atgctttcca tgtcaatata gttgatacaa ctggtgccgg tgactccttt gttggtgctt 120
 tattggccaa gattgtcgat gatcagtcca tacttgaaga tgaaccaagg ttaagagaag 180
 tactaaagtt tgcaaatgca tgtggagcta ttacaactac ccaaaaggga gcaattccgg 240
 cccttcccaa agaggaggct gcaactg 266

<210> 2661
 <211> 234
 <212> nucleic acid
 <213> Glycine max

<400> 2661

tctcgagccg attcggctga gatgggtcca gatactacac caacagtttc aaaggatcgg 60

tagatgcttt ccatgtcaat acagttgata caactgggtgc cggtgattcc tttgttggtg 120
 ctttattggc caagattgtc gatgatcagt ccatacttga agatgaacca aggttaagag 180
 aagtataaag tttgcaaag catgtggagc tattacaact acccaaaagg gagc 234

<210> 2662
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (39)
 <223>

<400> 2662

cgaaaacagt gttccaaaat ccacacacac tctctctcnt catggcggtg aacaatggcg 60
 tccccgccac cggcaccggc ctcacgtca gcttcgggtga gatgctcatc gacttcgtcc 120
 ccaccgtctc tggcgtgtcc ctggccgagg cccctggctt cctcaaggaa aacggcgctc 180
 gcggcgacgg catcaacttt gaccagggcg caccgaccgc cctggccttc gtgacctaac 240
 gcggcgacgg gga 253

<210> 2663
 <211> 168
 <212> nucleic acid
 <213> Glycine max

<400> 2663

ctaaaatcca aacacactct ctcttcccat ggcgttgaac aatggcgctc ccgccaccgg 60
 caccggcctc atcgtcagct tcggtgagat gctcatcgac ttctgtccca ccgtctctgg 120
 cgtgtccctg gccgaggccc ctggcttcct caaggccccc ggcggcgc 168

<210> 2664
 <211> 286
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (92), (195), (267), (276)
 <223> unsure at all n locations

<400> 2664
aaacagtgtt ccaaaatcca aacacactct ctctcccat ggcgttgaac aatggcgtcc 60
ccgccaccgg caccggcctt catcgtcagc tntcggtag atgctcatcg acttcgtccc 120
caccgtctct ggcgtgtccc tggccgaggc cctggcttcc tcaaggcccc cggcggcgcc 180
cccgttaacg tcgcnatcgc cgtgtcgcgc ctccggcgca aagcgctttc gtcggcaagc 240
tcggcgacga cgagttcggc aaaatgntcg ccggantccc caagga 286

<210> 2665
<211> 304
<212> nucleic acid
<213> Glycine max

<400> 2665
gttttccatt acggatcaat cagtttgatc gtggagccat gcagatcagc acacttgaag 60
gcaatggaag tagccaagga atctgggtgc ttgtctcct atgaccccaa ccttcgtcta 120
cctttgtggc catcggctga ggaagctcgt aagcaaatac tgagcatttg ggagaaggct 180
gatttgatca aggtcagtga tgcggagctt gagttcctca caggaagtga caagattgat 240
gatgaatctg ctttgtcatt gtggcacccc aatttgaagt tgctccttgt cactcctggg 300
gaac 304

<210> 2666
<211> 280
<212> nucleic acid
<213> Glycine max

<400> 2666
gttttccatt acggatcaat cagtttgatc gtggagccat gcagatcagc acacttgaag 60
gcaatggaag tagccaagga atctgggtgc ttgtctcct atgaccccaa ccttcgtcta 120
cctttgtcgc cttcggctga ggaagctcgt aagcaaatac tgagcatttg ggagaaggct 180
gatttgatca aggtcagtga tgcggacttg agttcctcac aggaagtga aagattgatg 240
atgaatctgc tttgtcattg tggcacccca atttgaagtt 280

<210> 2667
<211> 275

<212> nucleic acid
 <213> Glycine max

<400> 2667

caagattcat catcaatctt gtgacaggaa gtgacaagat tcatcatcaa tcttgtcact 60
 tcttgtgagg aactcaagct ccgcatcact gaccttgatc aaatcagcct agtgccaaat 120
 gctcagtatt tgcttacgag cttgtctcagc cgaaggcaca aaggttagacg aaggttgggg 180
 tcataggaga gcaagcacc agattccttg gctacttcca ttgccttcaa gtgtgctgat 240
 ctgcatggct ccacgatcaa actgattgat ccgta 275

<210> 2668
 <211> 247
 <212> nucleic acid
 <213> Glycine max

<400> 2668

ggatcaatca gtttgcctgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtgctt gctctcctat gacccaaccc ttcgtctacc tttgtggcct 120
 tcggctgagg aagctcgtaa gcaaatactg agcatttggg agaaggctga tttgatcaag 180
 gtcagtgatg cggacttgag ttcctcacag gaagtgacaa gattgatgat gaatctgctt 240
 tgtcatt 247

<210> 2669
 <211> 245
 <212> nucleic acid
 <213> Glycine max

<400> 2669

ggatcaatca gtttgcctgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtcttg ctctcctatg accccaacct tcgtctacct ttgttgctt 120
 cggctgagga agctcgtaag caaatactga gcatttggga gaaggctgat ttgatcaagg 180
 tcagtgatgc ggagcttgag ttcctcacag gaagtgacaa gattgatgat gaatctgctt 240
 tgtca 245

<210> 2670
 <211> 253

<212> nucleic acid
<213> Glycine max

<400> 2670

gtgaccctac gcgccgacgg ggagcgtgag ttcattgttct acagaaaccc cagcgccgac 60
atgctcctca agcccgaaga actcaatctc gaactcatca gatctgcaaa agttttccat 120
tacggatcaa tcagtttgat cgtggagcca tgcagatcag cacacttgaa ggcaatggaa 180
gtagccaagg aatctgggtg cttgctctcc tatgacccca accttcgtct acctttgtgg 240
ccttcggctg agg 253

<210> 2671
<211> 234
<212> nucleic acid
<213> Glycine max

<400> 2671

caatctcgaa ctcatcagat ctgcaaaaagt tttccattac ggatcaatca gtttgatcgt 60
ggagccatgc agatcagcac acttgaaggc aatggaagta gccaaggaat ctgggtgctt 120
gctctcctat gaccccaacc ttcgtctacc tttgtggcct tcggctgagg aagctcgtaa 180
gcaaatactg agcatttggg agaaggctga tttgatcaag gtcagtgatg cgga 234

<210> 2672
<211> 263
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (237)
<223>

<400> 2672

ctcaatctcg aactcatcag atctgcaaaa gttttccatt acggatcaat cagtttgatc 60
gtggagccat gcagatcagc acacttgaag gcaatggaag tagccaagga atctgggtgc 120
ttgctctcct atgaccccaa ccttcgtcta cccttgtggc cttcggctga ggaagctcgt 180
aagcaaatac tgagcatttg ggagaaggct gatttgatca aggtcagtga tgcgganttg 240
agttcctcac aggaagtgac aag 263

<210> 2673
 <211> 229
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (173), (177)
 <223> unsure at all n locations

<400> 2673

gctcctcaag cccgaagaac tcaatctcga actcatcaga tctgcaaaag ttttccatta 60
 cggatcaatc agtttgatcg tggagccatg cagatcagca cacttgaagg caatggaagt 120
 agccaaggaa tctgggtgct tgctctccta tgaccccaac ctctgtctac ctntgtngcc 180
 ttgggtgag gaagctcgta agcaaatact gagcatttgg gagaaggct 229

<210> 2674
 <211> 256
 <212> nucleic acid
 <213> Glycine max

<400> 2674

ggatcaatca gtttgatcgt ggagccatgc agatcagcac acttgaaggc aatggaagta 60
 gccaaaggaat ctgggtgctt gctctcctat gaccccaacc ttctgtctacc tttgtgcgcc 120
 ttgggtgag gaagctcgta agcaaatact gagcatttgg gagaacgctg atttgatcaa 180
 ggtcagtgat gcggacttga gttcctcaca ggaagtgaca agattgatga tgaatctgct 240
 ttgtcattgt ggcacc 256

<210> 2675
 <211> 323
 <212> nucleic acid
 <213> Glycine max

<400> 2675

ttgggtcga gaatggcgca cgcaccgcc tggccttcgt gaccctacgc gccgacgggg 60
 agcgatagtt catgttctac agaaacccca gcgtcgacat gctcctcaag cccgaagaac 120
 tcaatctcga actcatcaga tctgcaaaag ttttcaatta cggatcaatc agtttgatcg 180
 tggagccatg cagatcagca cacttgaagg caatggaagt agccaaggaa tctgggtgct 240

<211> 339
 <212> nucleic acid
 <213> Glycine max

 <400> 2678

 gggagcgtga gttcatgttc tacagaaacc ccagcgccga catgctcctc aagcccgaag 60
 aactcaatct cgaactcatc agatctgcaa aagttttcca ttacggatca atcagtttga 120
 tcgtggagcc atgcagatca gcacacttga aggcaatgga agtagccaag gaatctgggt 180
 gcttgctctc ctatgacccc aaccttcgtc tacctttgtg gccttcggct gaggaagctc 240
 gtaagcaaat actgagcatt tgggagaaaag ctgatttgat caaggtcagt gatgcggaag 300
 ctgagttcct cacaggaagt gacaagattg atgatgaat 339

<210> 2679
 <211> 271
 <212> nucleic acid
 <213> Glycine max

 <400> 2679

 cagccgcaga cagagatgga agctgtgtgt ggaagtgttt gggtcacatc ctctcttcca 60
 cgctcaccca agtccactct ctctctattc cgctctactc atcaacacct aacagcattt 120
 ccttcacaat cccatctttt cttatatcac cctcctccct atgctaattgc taaaaccctc 180
 cgcgccagaa cctcctccaa acccgccatt ttccttcccc acttaattgc ttctctggaa 240
 caagttgacc agacttacat aatgggtcaag c 271

<210> 2680
 <211> 391
 <212> nucleic acid
 <213> Glycine max

 <400> 2680

 acgcgtccag tacagctggc caaaaaacga ccgaaggggg agataccaag gaaatttggt 60
 tcttacctct taccgcgaga cagatgaaaag aagggaaata catggaagct gtgtgtgcaa 120
 gtggaagcag tgtttgggtc acatcctcgc ttacacgcac acccaagatc aactccctc 180
 tattccgcgc cagtttagcac cagctaacag catttccttc acaatccctt cttttctcct 240
 atcacccttc tcgctatgct aatgctagaa ccctccgcgc cacaacctcc tccagaccca 300

ttttccttcc ccacataagt gcatcactgg aacaaattta ctacacttat attatgggtca 360
agccccgacgg cgtcaaacgt ggccctcgtgg g 391

<210> 2681
<211> 405
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (383)
<223>

<400> 2681

agacggctgc gagaagacga cagaaggggg gttcttctta gccgtagttt tctctcacag 60
ccgcagacag agatggaagc tgtgtgtgga agtgtttggg tcacatcctc tcttccacgc 120
tcaccaagt ccactctctc tctattccgc tctactcatc aacacctaac agcatttcct 180
tcacaatccc atcttttctt atatcaccct cctccctatg ctaatgctaa aaccctccgc 240
gccagaacct cctccaaacc cgccattttc cttccccact taattgcttc tctggaacaa 300
gttgaccaga cttacataat ggtcaagccc gacggcgtgc aacgtggcct cgtgggagaa 360
attacttcta ggtttgagaa ganagggttt aagtcaactg gcttg 405

<210> 2682
<211> 237
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (206), (227)
<223> unsure at all n locations

<400> 2682

gaagcacttt tggatgttgc gtcattgtctt gcaagcagtg ctcagaccca gaagggatgg 60
aatcgcataa tatttgagaa gccatttggc tttgatgcac tttcttccca taggctgaca 120
caatatcttc tttcaaactt tcaggaaaag caaatatata gaattgatca tctactagga 180
aggatatctc atgaaaactc tacagnttta agggtttcaa agcgagnttt tgagcca 237

<210> 2683

<211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2683

ctgtgttgag ttttccaacc ttaaaaagac tctctcttct ctctcgctct ttctctccct 60
 gaagcaaaac aacattagca tcaaaaccag agtggttcta gtaatccggt gctgctagag 120
 gatgggaact agtgaatggc atatcgagcg aagatctagc ttgggcactg aatccccctt 180
 agcaatatag gcacgcaatg tgcttgaac tcgtcactct ctattgtcgt gcttggcgct 240
 tctggggatc ttgct 255

<210> 2684
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2684

tatggaatcg cataatat t gataagccat ttggctttga tgcactttct tcccataggc 60
 tgacacaata tcttctttca aactttcagg aaaagcagat atatagaatt gatcatctac 120
 taggaaggaa tctcattgaa aatcttacag ttttaagggt ttcaaactta gtttttgagc 180
 cactttggag tcgtacttat atagataatg tacagggtcat tttatcagag gacttggctg 240
 tgcacacttg aaatattcaa 260

<210> 2685
 <211> 279
 <212> nucleic acid
 <213> Glycine max

<400> 2685

tacggctgcy acaagacgac agaaggggag tgcgtgaaga aaacaccaac tgttttgagt 60
 tttccaacct taaaaagact ctctcttctc tctctctctt tctctacctg aagcaaaaca 120
 acattagcat caaaaccaga gtggttctag taatccggtg ctgctagagg atgcgaacta 180
 gtgaatggca tatcgagcga agatctagct tcggcactga atccccctta gcaagagagg 240
 caggaaatgt gcctgaaact gggtcactct ctattgttg 279

<210> 2686

<211> 137
 <212> nucleic acid
 <213> Glycine max

<400> 2686
 ccaggcagta tataagacat ggacagttga tattctcaga agattttggc actgaaggac 60
 gtggcgggta ctttgaccat tatggtatca tgagagacat tatgcagaat catttacttc 120
 aaatactagc actcttt 137

<210> 2687
 <211> 284
 <212> nucleic acid
 <213> Glycine max

<400> 2687
 caaccttaaa agactctctt ttctctctct gaactctgaa gcaaaacaac attaccagag 60
 tgggttctagt aattcagtgc tgctagaaga tggaaactag tgaatggcat atcgagcgaa 120
 gatctagctt cggctctgaa tcccccttag caagagagggc aggaaatgtg cctgaaactg 180
 ggtcactctc tattgtggtg cttggtgctt ctggtgatct tgctaagaag aagacatttc 240
 ctgcactttt ccacctatac ctgcagggat tcttaccacc agat 284

<210> 2688
 <211> 242
 <212> nucleic acid
 <213> Glycine max

<400> 2688
 cttttctctc tctgaactct gaagctaaac aacattacca gagtggttct agtaattcag 60
 tgctgctaga agatggaaac tagtgaatgg catatcgagc gaagatctag cttcggctct 120
 gaatccccct agcaagagag gcaggaaatg tgcttgaaac tgggtcactc tctattgtgg 180
 tgcttggtgc ttctggtgat cttgctaaga agaagacatt tctgcactt ttccacctat 240
 ac 242

<210> 2689
 <211> 194
 <212> nucleic acid
 <213> Glycine max

<400> 2689

tgtttcagct aactctgctt cacttggttaa ttgagtgggt ctagtaatcc ggtgctgcta 60

gaggatggga actagtgaat ggcataatga ggaagatct agcttcggca ctgaatcccc 120

cttagcaaga tatgcaggaa atgtgctga aactgggtca ctctctattg ttgtgcttgg 180

cgcttctggg gatc 194

<210> 2690

<211> 286

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (100), (272)

<223> unsure at all n locations

<400> 2690

cttactcctc ctgcagttga ggcaatatca gagagttttg gagagtggat tatcaaaggt 60

ttaaagaagg aaaaaggata cctgtagag aatgttagan cgtctctccg ggcgtgaccc 120

tgcagtcac agggccccaa attgagcgtc gcagttttgc aggtctggct cgcgccggtt 180

gcatggtgta tgatatggga ctagccacca ccccggttg tttcatgagc atttgttgcc 240

tccattgcct atgatgcttc aatgatgatg anagcttctc acttgc 286

<210> 2691

<211> 269

<212> nucleic acid

<213> Glycine max

<220>

<221> unsure

<222> (97)

<223>

<400> 2691

gtcttgctcg atcaatgcca acaagcgggt ctctggaccg tgttgctaaa aaattgaacc 60

tccctttctt tgagggtccc actggttgga aattttntgg gaatcttatg gatgctggga 120

atgtgtccgt tgcggggaag agagttttgg aacaggttct gatcacattc gtgagaaaga 180

tggcatctgg gctgtcttag cttggctttc tattattgca catcgcaaca aagacaagaa 240

tcccggggag aaattgatct ccgtatctg

269

<210> 2692
<211> 289
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (40), (54), (70), (99), (106), (112), (127), (166), (202),
(237)...(238), (254)
<223> unsure at all n locations

<400> 2692

cttgctcgat caatgccaac aagtgggtgct ttggaccgtn ttgctgaaaa attngacctc 60
cctttctgtn aggcattgctt gattttttctt acaatttcnt tcttcntaaa tnattaatat 120
aaatganata ggcttcacat atttttagac agttctgaaa taacanaaga tggacccggg 180
attcagggcc ccactgggtg gnaatttttt gggaatctta tggatgctgg gaatttnncg 240
gtttgcgggg aagnaagttt ggaacagggt ctgaccacat gcgtgagat 289

<210> 2693
<211> 298
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (2), (20), (39), (51), (101), (141), (151)
<223> unsure at all n locations

<400> 2693

tngtcaacat tctgtatgcn gaaaatggac ctgattttng agcagccagt natggggatg 60
gtgatagaaa tatgatttta ggaagaagtt tcttgtaact nccttcagac tctgtagcag 120
ttattgcagc cattgcaaga naagcgattc natacttcaa gaacggagtt aagggctctg 180
ctcgatcaat gccacaagc ggtgctctgg accgtgttgc taaaaaattg aacctccctt 240
tctttgaggt cccactgggt tggaaatfff ttgggaatct tatggatgct gggaatff 298

<210> 2694
<211> 264
<212> nucleic acid
<213> Glycine max

<220>
 <221> unsure
 <222> (6), (195), (263)
 <223> unsure at all n locations

<400> 2694

tttgttaggt tttttgtcac tccttcagat tccgtggcca ttatcgctgc aaatgcactt 60
 gaagctatac catacttttc tgctgggtta aagggtgttg ccaggagcat gccaacctct 120
 gctgccctgg atgttggtgc caaattctga atttgaaatt ttttgagggtc cccacgggtt 180
 ggaagttctt ggtantttta tggatgctgg attgttcagt ctgtggtgaa gaaagtttgg 240
 gatggttcga ccagttcgtg agna 264

<210> 2695
 <211> 250
 <212> nucleic acid
 <213> Glycine max

<400> 2695

cacattcgtg agacagatgg catctgggct gtttttagcta gattttctat tattgcacat 60
 cgcaacaaag acaagaatcc cggggagaaa ttgatctccg tatctgacgt tgtgatggag 120
 cactgggcac ttatggaagg aatttcttct ctagatatga ctacgaggaa tgtgaatctg 180
 aaggtgccaa taagatgata gaatacctac gagatatttt gtctaagagc aagcctgggtg 240
 atcagtatgg 250

<210> 2696
 <211> 340
 <212> nucleic acid
 <213> Glycine max

<400> 2696

cacacctgcc gccagtcaca tcatccggat acgaaaggcg accggtggca tcctcctcac 60
 tgccagccac aacctggtg gccccgatga ggactttggc atgaagtaca acctcgccaa 120
 cggtgccccg gctccccgaga gcgtcaccaa caagatctac gaaacctcca agacctctc 180
 gtcgtacaag atcgccgaac tccccgacat cgacttgagc acaattggca cacaaaagta 240
 tggcagcctc gaggttgaga tcgtccactc aacagaggac tacctgaaga tgctcaagga 300

catcttcgac tttgacctca tcaagtcgtt cctcaagcag 340

<210> 2697
 <211> 228
 <212> nucleic acid
 <213> Glycine max

<400> 2697

ctggtgggcc cgacaatgat ttccgcatca agtacaacgt caacaacggt ggtccagctc 60
 cagagagtgt gaccgacaag atcttccaac gcaccaagga gatttccgcc tacaagggtcc 120
 ttgatgctgg cgagcttgac ctatccaaga ttagtagctc cacctatggt cccatggagg 180
 ttgagatcgt cgactcgtc aaggactata ttaccctact caaggaca 228

<210> 2698
 <211> 231
 <212> nucleic acid
 <213> Glycine max

<400> 2698

atttagtaaa agcagttcgc aaggcagctg gaaacataga gaaaccattg gagggtttcc 60
 atatagttgt tgatgcaggc aatggagcag gaggcitttt tgcagcaaag gttctggaac 120
 ctctgggggc aataacttct gggagtcaat ttttggagcc tgatggcttg tttccaaatc 180
 atatcccaaa tcttgaggac aaaacagcaa tgaaagctat aaccaagca g 231

<210> 2699
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2699

atcagatctg ccagatgtgg atatcaccac aacaggtggt acaagcttta caggccctga 60
 aggaccattt gatgttgagg tttttgattc agcaagtgat tatataaaat tgatgaagtc 120
 aatTTTTgat tttgaatcta tcaggaaaact gctgtcatct cctaaattca cattctgtta 180
 tgatgcacta catgggggtg gtggagcata tgcaaagagt atatttTgtg atgagcttgg 240
 ggcacaagaa agctcttttac tgaac 265

<210> 2700

<211> 261
 <212> nucleic acid
 <213> Glycine max

 <400> 2703

 gcattgggct acttatgggc gccattatta tactcgatat gactatgaaa acgtggatgc 60
 aggtgcagca aaggaactga tggcatatgt ggtcaagctg cagtcctcac tttcagaagt 120
 caatcagatt gttaagggga taaggtcaga tgtttcgaat gttgtccacg gtgatgaatt 180
 tgagtacaat gatcctgtgg atggttccat ctcatcacat cagggaatcc gatatttgtt 240
 tgaggatgga tcacgattga t 261

<210> 2704
 <211> 300
 <212> nucleic acid
 <213> Glycine max

 <400> 2704

 tctcgagccg aatcggctcg agtacggctg cgagaagacg tcagaacggg tggacagatc 60
 tgctgctgtg gatttcactg gccgtgaatt caacaggaat cgtttaattg ccttaatggc 120
 agctattgtt cttgaggaac atcctggaac aactattgtc acagacagtg tgacttctga 180
 tgggcttacc acgtttattg agaagaaact tgggtggcaga caccatcggg tcaaaagagg 240
 ctacaaagat gtgattgatg aagctattcg tttgaattct attggtgagg agtcacattt 300

<210> 2705
 <211> 279
 <212> nucleic acid
 <213> Glycine max

 <220>
 <221> unsure
 <222> (55), (170)
 <223> unsure at all n locations

 <400> 2705

 ccaaaggaag acttcggagg aggacacca gacccaatt tgacatatgc aaaanagttg 60
 gttgctcgta tgggattggg caaatccgaa cccaagaag agccccaga gtttgggtgt 120
 gcttctgatg gtgatgcaga tcgcaacatg gttcttggtg aaaggttttn tgtcactcct 180
 tcagattccg tggccattat cgctgcaaat gctgttgaag ctataccata cttttctgtc 240

tgcaaattgct gttgaagcta tac 263

<210>	2709
<211>	269
<212>	nucleic acid
<213>	Glycine max

<400> 2709

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attcacattc tgttatgatg cacctacatg gggttgggtg agcttatgca aagagtattt	120
ttgtggatga gcttggagca caagaaagct ctttactgaa ctgtacacca aaggaagact	180
tctgaggagg ataccagagc tccagtttga catatgcaaa agagtttggt gctcgtatgg	240
gattgggcaa atccggaccc caagaagag	269

<210>	2710
<211>	283
<212>	nucleic acid
<213>	Glycine max

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<220>
<221>      unsure
<222>      (4), (12), (18), (37), (109)... (110), (160), (271)
<223>      unsure at all n locations
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<400> 2710

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atgcaaagag	tatttttgtg	gatgagctgg	agcacaagan	agctctttac	tgaactgtac	180
accaaaggaa	gacttcggag	gaggacaccc	agaccccaat	ttgacatatg	caaaagcagt	240
tggttgctcg	tatgggattg	ggcaaatccg	naccccaaga	aga		283

<210>	2711
<211>	263
<212>	nucleic acid
<213>	Glycine max

<400> 2711

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aagttgcatt gaaactttcg aagatggaag aattcactgg tcgatccgct ccaacagtca 120
 ttacatgaac acatacaggt ggaaggtggt tagatcctga agtttctccc agtcatttct 180
 tctttgttca gtttcttacg gatggccgaa cactagtgtt ggttgtttgc agcctttgct 240
 atgggcactt gagtggaatt tga 263

<210> 2712
 <211> 308
 <212> nucleic acid
 <213> Glycine max

<400> 2712
 gagaaggatc catcaaagat tgggagactt tcaaatgaag cccttgctcc tcttgtggaa 60
 gttgcattga aactttcgaa gatggaagaa ttactggtc gatccgctcc aacagtcatt 120
 acatgaacac atacaggtgg aaggtggtta gatcctgaag tttctcccag tcatttcttc 180
 tttgttcagt ttcttacgga tggccgaaca ctagtggttg ttgtttgcag cctttgctat 240
 gggcatgagt ggatttgatc agttacttat caaaatttga tgtgctgaat aagttgcaac 300
 tgccgagt 308

<210> 2713
 <211> 285
 <212> nucleic acid
 <213> Glycine max

<400> 2713
 caacaattcg attatacatt gagcaatatg agaaggatcc atcaaagatt gggagacttt 60
 caaacgaagc acttgctcct gcttgtggaa gttgcgttga aactttcgaa gatggaagaa 120
 ttactggtc gatccgctcc aacagtcatt aatgaacaca ttcaagtgga aggtgggttag 180
 atcctgaagc ttctcccagt gcatttcatt tcttctttgt ccagtatctt acggatagcc 240
 gaacagtaga tttggttggt tgcagccttt gctatgggaa attga 285

<210> 2714
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<400> 2714

gccagtcacg	gtgctcttca	atgtttcacg	cgtagagacc	actcccttcg	atggccagaa	60
gctgaaccc	tctggtctcc	gcaacaaggt	gaaagtgttc	gtgcaacctc	attacctcca	120
taactttggt	cagtcaacat	tcaatgcatt	aactgtggaa	aaagttagag	gtgcaacgct	180
agttgtatct	ggtgatggtc	gttatttttc	aaaggtagct	attcagatta	taactaaaat	240
gtcagcagca	aatggagtaa					260

<210>	2715
<211>	252
<212>	nucleic acid
<213>	Glycine max

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cgggtagcca gccagtcatg gtgctcttca atgtttcacg cgtagagacc actcccttcg 60
atggccagaa gcctggaacc tctgggtctcc gcaagaaggt gaaagtgttc gtgcaacctc 120
attacctcct aactttgttc agtcaacatt caatgcatta actgtggaaa aagtttagagg 180
tgcaacgcta gttgtatctg gtgatggctg ttatttttca aaggaagcta ttcagattat 240
aactaaaatg tc 252
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<400> 2716

gtttttcttt	gttcggtag	ccagccagcc	agccatggtg	ctcttcaatg	tttcacgcgt	60
tgagaccacc	ccctccgatg	cacacaagcc	tggaaacctct	cgtctccgca	agaagggtgaa	120
agtattcgtg	caacctcctt	acctccataa	ctttgtccag	cccacattca	atgccttaac	180
tgtggaaaaa	gttagagggtg	caacgctagt	tgtatctggt	gatggccggt	atttctcaaa	240
ggaagc						246

<400> 2717

gctaagctaa ctgaactctc tctcgttggt cccttggcct ctcgctctat aaatacacat 60
 cgcacatttc tctcacttgc acattgaaat ctgaaccttc cggatttcgt tttgctttgt 120
 tcaggtagcc agccagtcac ggtgctcttc aatgtttcac gcgtagagac cactcccttc 180
 gatggccaga agcctggaac ctctggtctc cgcaagaagg tgaaagtgtt cgtgcaacct 240
 cattacctcc ataactttgt tcagtcaa 268

<210> 2721
 <211> 240
 <212> nucleic acid
 <213> Glycine max

<400> 2721

acggctgcca gaagacgaca gaagggggca cattgaaatc tgaaccttcc ggatttcggt 60
 ttgctttgtt caggtagcca gccagtcacg gtgctcttca atgtttcacg cgtagagacc 120
 actcccttcg atggccagaa gcctggaacc tctggtctcc gcaagaagggt gaaagtgttc 180
 gtgcaacctc attacctcca taactttgtt cagtcaacat tcaatgcatt aactgtggaa 240

<210> 2722
 <211> 248
 <212> nucleic acid
 <213> Glycine max

<400> 2722

acggctgcta gaagacgaca gaagggggca cattgaaatc tgaaccttcc ggatttcggt 60
 ttgctttgtt caggtagcca gccagtcacg gtgctcttca atgtttcacg cgtagagacc 120
 actcccttcg atggcctgaa gcctggaacc tctggtctcc gctagaagggt gaaagtgttc 180
 gtgcaacctc attacctcca taactttgtt cagtcaagggt ttaatgcatt aactgtggaa 240
 aaagtttag 248

<210> 2723
 <211> 244
 <212> nucleic acid
 <213> Glycine max

<400> 2723

tgctcttcaa tgtttcacgc gtagagactc atgactggct ggctacctga acaaagcaaa 60

tttcacgcgt tgagaccact cccttcgatg gacagaagcc tggaacctct ggtctccgca 240
agaagggtgtc agtattcgtg caatctcatt acct 274

<210> 2727
<211> 237
<212> nucleic acid
<213> Glycine max

<400> 2727

catcaactgc taagetaact gaactctctc tcgttggtcc cttggcctct cgctctataa 60
atacacatcg catcattctc tcacttgcaa attgaaatct ggaacttccg gatttcgttt 120
tgctttgttc aggtagccag ccagtcattg tgctcttcaa tgtttcacgc gtagagacca 180
ctcccttcga tggccagaag cctggaacct ctggtctccg caagagggtga agtggtc 237

<210> 2728
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2728

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gagaaagatg gaatatgggc agttttggca tggctatcta tacttgcata tagaataaaag 120
ataaacttga agacaagctt gtcactgttg aagacatagt tcgccagcat tgggctactt 180
atgggcgcca ttattatact cgatatgact atgaaaatgt ggatgcaggt gcagcaaagg 240
aactgatggc atatttggtc aagctgcagt cc 272

<210> 2729
<211> 197
<212> nucleic acid
<213> Glycine max

<400> 2729

gctggattat gttcagtcctg tggatgaagaa agttttggga ctggttctga ccatattcgt 60
gagaaagatg gaatctgggc agttttggcc tggctatcta tacttgcata taaaaataaaa 120
gataaacttg aagacaagct tgcactgtt gaagacatag ttcgccagca ttgggctact 180
tatgggcgcc attatta 197

<210> 2730
 <211> 237
 <212> nucleic acid
 <213> Glycine max

 <400> 2730

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 ctcagtctgt ggtgaagaaa cttttgggac tggttctgac catattcgtg agaaagatgg 120
 aatctgggca gttttggcct ggctatctat acttgcataat aaaaataaag ataaacttga 180
 agacaagctt gtcactgttg aagacatagt tcgccagcat tgggctactt atgggacg 237

<210> 2731
 <211> 257
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (50)
 <223>

<400> 2731

 ggaatctggg cagttttggc ctggctatct atacttgcata ataaaaatan agataaactt 60
 gaagacaagc ttgtcactgt tgaagacata gtccgccagc attgggctac ttatgggacg 120
 cattattata ctcgatatga ctatgaaaat gtggatgcag gtgcagcaaa ggaactgatg 180
 gcatatcttg tcaagctgca gtcctcactt tcagaagtca atcagattat taaggggata 240
 aggtcagatg tttcgaa 257

<210> 2732
 <211> 266
 <212> nucleic acid
 <213> Glycine max

<400> 2732

 gtacaatgat cctgtggatg gttccatctc atcatatcag ggaatccgat atttgtttga 60
 ggatggatca cgattgattt tccgcctatc tggaactgga tcagaaggtg caacaattcg 120
 actatacatt gagcactatg agaaggatcc atcaaagatt gggagacttt caaatgaagc 180
 ccttgctcct cttgtggaag ttgcattgaa actttcgaag atggaagaat tcaactggtcg 240

atccgctcca acagtcatta catgaa

266

<210> 2733
<211> 243
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (229)
<223>

<400> 2733

gtacaatgat cctgtggatg gttccatctc atcacatcag ggaatccgat atttgtttga 60

ggatggatca cgattgattt tccgcctatc tggaactgga tcagaagggtg caacaattcg 120

attatacatt gagcaatatg agaaggatcc atcaaagatt gggagacttt caaacgaagc 180

acttgctcct cttgtggaag ttgcgttgaa actttcgaag atggaagant tcaactgggtcg 240

atc 243

<210> 2734
<211> 272
<212> nucleic acid
<213> Glycine max

<400> 2734

tacggctgcg agaagacgac agaaggggga taagggtcaga tgtttcgaat gttgttcacg 60

gtgatgaatt tgagtacaat gatcctgtgg atggttccat ctcatcacat cagggaatcc 120

gatatttggt tgaggatgga tcacgattga ttttccgcct atctggaact ggatcagaag 180

gtgcaacaat tcgactatac attgagcaat atgagaagga tccatcaaag attgggagac 240

tttcaaataga agcccttgct cctcttgtgg aa 272

<210> 2735
<211> 288
<212> nucleic acid
<213> Glycine max

<400> 2735

ctccgtctta cggcaattga aggaagcact atctctgcaa cttccgtcac attcacatgg 60

cagcttctgc atctgctact gctgtgccat atctagacaa gacagatttt ctaaagcttc 120
 aaaatggcag tgacattcgt ggtgtggctg ttgatgggtg tgagggagag ccagttaacc 180
 tcaactgaacc tgttgccgaa gcaataggag ctgcttttgc tgcattggta gtggagaaaa 240
 agaaagctga tgcttctcag catttgagag tttctattgg tcatgatt 288

<210> 2736
 <211> 368
 <212> nucleic acid
 <213> Glycine max

<400> 2736

atcctggaac aactattgtc acagacagtg tgacttctga tgggcttacc acgtttattg 60
 agaagaaact tgggtggcaga caccatcggg tcaaaaagagg ctacaaaaat gtgattgatg 120
 aagctattcg tttgaattct attgggtgagg agtcacattt ggcaattgaa actagtggac 180
 atggagctct caaggaaaat cattggcttg atgatggcgc atacctaatt gtcaagatct 240
 taaataaact tgcttctgca agagcttctg gaaaggggtg tggaagtaag gttttgactg 300
 atctaataga cggacttcag gaaccagatt ttgctgtaga actgagatta aagataaacc 360
 aaaacat 368

<210> 2737
 <211> 414
 <212> nucleic acid
 <213> Glycine max

<400> 2737

caagcccatt gatggacaaa agactggaac cagtgggctt cgaaagaagg tgaaagtgtt 60
 tatgcaagac aattaccttg caaattggat ccaggctctg tttaattcat tgccaccgga 120
 ggactacaag aatggtttgt tgggtgttggg aggtgatggt cgatacttta atcaggaagc 180
 tgcacagata ataatacaaa ttgctgctgg aaatgggtgtt ggaaaaattc tggttggaaa 240
 ggaagggtatt ttgtcaacac cagccgtttc tgctgttata agaaagagaa aggcaaatgg 300
 tggatttatt atgagtgcaa gccataatcc tggcggacct gaatatgatt ggggtattaa 360
 gtttaattac agcagtggac aacctgcacc agaattccatc actgacaaga tttta 414

<210> 2738

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gaaccttcg	gatttcgttt	tgctttgttc	aggtagccag	ccagtcatgg	tgctcttcaa	60
tgtttcacgc	gtagagacca	ctcccttcga	tggccagaag	cctggaacct	ctgggtctccg	120
caagaaggtg	aaagtgttcg	tgcaacctca	ttacctccat	aactttgttc	agtcaacatt	180
caatgcatta	actgtggaaa	aagttagagg	tgcaacgcta	gttgtatctg	gtgatgggtcg	240
ttatttttca	aaggaagcta	ttcagattat	aactaaaatg	tcagcagcaa	atggagtaag	300
acgtgttttg	attggtcaaa	atggattgct	ttcaactcct	gcagtatctg	ctgttatatcg	360
tgaaagagtt	ggagctgatg	gattcagggc	aacaggtgca	tttatactga	ca	412

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<220>
<221>      unsure
<222>      (279)
<223>
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actacaaata	cacatctcat	ctcatccgtc	tctcactttt	aattttttctc	tgcaatctga	120
accttcgga	tttcgttttt	ctttgttccg	gtagccagcc	agccagccat	gggtgctcttc	180
aatgtttcac	gcgttgagac	cactcccttc	gatggacaga	agcctggaac	ctctgggtctc	240
cgcaagaag	tgaaaagtatt	cgtgcaacct	cattacctnc	ataactttgt	tcagtcaaca	300
ttcaatgcat	taactgtgga	aaaagttaga	gggtgcaacgc	tagttgtatc	tggtgatggg	360
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<400> 2740

<210> 2743
 <211> 264
 <212> nucleic acid
 <213> Glycine max
 <400> 2743

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 tattattatt atctccacac ccttcaactct ccttcagtct tctctogaat cttccaccgc 120
 aatggccacc cctgccgaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagtgag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caag 264

<210> 2744
 <211> 253
 <212> nucleic acid
 <213> Glycine max
 <400> 2744

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 atttaatggt acccacaacg aaatttaagc ttcgggagat tgggtggagac caagataaac 180
 acttgaagga caatttcaaa ctcatcgata caacaaacat gtgggtgagt ttaagagcca 240
 tcaagagggt tgt 253

<210> 2745
 <211> 243
 <212> nucleic acid
 <213> Glycine max
 <400> 2745

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 cattcatgat agttctctaa aggttttggga gaagtattct aaatcaagtg ttgaagtgca 180
 cactttttaa caggggtgaag atcgagagtt gaaatcattg ggtgaatata tagcaaggag 240
 gaa 243

<210> 2746
 <211> 255
 <212> nucleic acid
 <213> Glycine max

<400> 2746

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 cggatgaagt agtgggtgcct tatgactcct tggcaccgac tcctgacggg tctttggagg 180
 tgaagaacct cttggacaag cttgtggtgt tgaagctcaa tggaggcttg gggacaacta 240
 tgggttgtag tggcc 255

<210> 2747
 <211> 260
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (5)...(6)
 <223> unsure at all n locations

<400> 2747

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 tgtgttccgt ttactaatga ctgggtggaac ccttgattca ttattatcac agggtaagga 180
 gtatatccta gtgttgaagt cggacaatgt ggcaacagtc cttgatccaa acatactaaa 240
 tcatttgatg ataaatgata 260

<210> 2748
 <211> 282
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (116)
 <223>

<400> 2748

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<210> 2751
<211> 312
<212> nucleic acid
<213> Glycine max

<400> 2751

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gctatagttg acttgatgta cttgactcat tgatgtagag atcttaaate atttgatcca 120
gaacaagaat gaatactgta tggaggtgac tcccaaaaca ttggctgatg taaaggggtgg 180
cactttgatt tcttacgaag gaaggggttca gcttttggaa attgcacaag tcccagatga 240
acatgtcaat gagttcaagt caatagagaa gttcaaaatt ttcaacacaa atcatagtcg 300
gtgaacttaa at 312

<210> 2752
<211> 209
<212> nucleic acid
<213> Glycine max

<400> 2752

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ggaggtgaag aatctattgg acaagcttgt ggtgttgaag ctaaatggag gcttgggaac 180
aactatgggt tgcactggtc ctaaatctg 209

<210> 2753
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2753

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atccagacgc ctacggacga agtgggttgt ccttacgaca ctttggcgcc aactcctgaa 180
ggttcttcgg aggtgaagaa tctattggac aagcttgtgg tgttgaagct aaatggagggc 240

ttgggaacaa ctatgggttg cactgggcct aaatctg

277

<210> 2754
<211> 245
<212> nucleic acid
<213> Glycine max

<400> 2754

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actggagcaa gatccagacg actacggacg acagtgggtg tgccttacga cactttggcg 120
ccaactcctg aaggttcttc ggaggtgaag aatctattgg acaagcttgt ggtgttgaag 180
ctaaatggag gcttgggaac aactatgggt tgcactggtc ctaaactctgt aattgaagtt 240
cgtga 245

<210> 2755
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 2755

ttccaccgca atggccaccg ctgccgagaa actctccgct ctcaaaccg ccgtcgccgg 60
attgaacgaa atcagtgaga ctgagaagaa cggattcatc agcctcgtcg gccgctatct 120
cagtggcgaa cgcagcatgt ggaatggagc aagatccaga cgcctacgga cgaagtgggt 180
gtgccttacg acactttggc gccaaactct gaaggttctt cggaggtgaa gaatctattg 240
gacaagcttg tgggtgttgaa gctaaatgga 270

<210> 2756
<211> 219
<212> nucleic acid
<213> Glycine max

<400> 2756

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cagtgagaat gagaagaacg gattcatcag cctcgtcggc cgctatctca gtggcgaacg 120
cagcatgtgg aatggagcaa catccagacg cctacggacg aagtggttgt gccttacgac 180
actttggcgc caactcctga aggttcttcg gaggtgaag 219

<210> 2757
 <211> 217
 <212> nucleic acid
 <213> Glycine max
 <400> 2757
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 aacgaaatca gtgagaatga gaagaacgga ttcacagcc ttgtcggccg ctatctcagt 120
 ggcgaacgca gcatgtggaa tggttcaaga tccagacgcc tacggacgaa gtggttgtgc 180
 cttacgacac tttggcgcca actcctgaag gttcttc 217

<210> 2758
 <211> 286
 <212> nucleic acid
 <213> Glycine max
 <400> 2758
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 tattattatt atctccacac ctttcaactct ctctcaactct tctctcgaat cttccaccgc 120
 aatggccacc gctgccgaga aactctccgc tctcaaattcc gccgtcgccg gattgaacga 180
 aatcagtgag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caagtccaga cgcctacgga cgaatg 286

<210> 2759
 <211> 262
 <212> nucleic acid
 <213> Glycine max
 <400> 2759
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 actctccgct ctcaaattccg ccgtcgccgg attgaacgaa atcagtgaga atgagaagaa 120
 cggattcatc agcctcgtcg gccgctatct cagtggcgaa cgcagcatgt ggaatggagc 180
 aagatccaga cgcctacgga cgaagtggat gtgcctacac gacactttgg cgccaactcc 240
 tgaaggttct tcggaagtga ag 262

<210> 2760

<211> 263
 <212> nucleic acid
 <213> Glycine max

<400> 2760

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 aatggccacc cctgccgaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatggag caa 263

<210> 2761
 <211> 259
 <212> nucleic acid
 <213> Glycine max

<400> 2761

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 aatggccacc gatgccgaga aactctccgc tctcaaatcc gccgtcgccg gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggaatgga 259

<210> 2762
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2762

cgtgtcaatt tctaaatcca ccaccacacc ctctcttcta ttctctatta ttattatctc 60
 cacacccttc actctctctc actcttctct cgaatcttcc accgcaatgg ccaccgctgc 120
 cgagaaactc tccgctctca aatccgccgt cgcgggattg aacgaaatca gtgagaatga 180
 gaagaacgga ttcatcagcc tcgtcggccg ctatctcagt ggccaacgca gcatgtggaa 240
 tgg 243

<210> 2763

<211> 254
 <212> nucleic acid
 <213> Glycine max

<400> 2763

ctggcctttt gttctcgtgt caattttctaa atccaccacc acaccctcac ttctattctc 60
 tattattatt atctccacac ccttcactct ctctcactct tctctcgaat cttccaccgc 120
 aatggccacc cctgcccaga aactctccgc tctcaaatcc gccgtcgcgc gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 acgcagcatg tggg 254

<210> 2764
 <211> 268
 <212> nucleic acid
 <213> Glycine max

<400> 2764

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 tattattatt atctccacac ccttcactct ctctcactct tctctcgaat cttccaccgc 120
 aatggccacc cctgcccaga aactctccgc tctcaaatcc gccgtcgcgc gattgaacga 180
 aatcagttag aatgagaaga acggattcat cagcctcgtc ggccgctatc tcagtggcga 240
 aggcagcatg tggactggag caagatcc 268

<210> 2765
 <211> 243
 <212> nucleic acid
 <213> Glycine max

<400> 2765

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 attctctatt attattatct ccacaccctt cactctctct cactcttctc tcgaatcttc 120
 caccgcaatg gccaccgctg ccgagaaaact ctccgctctc aaatccgcgc tcgcccggatt 180
 gaacgaaatc agtgagaatg agaagaacgg attcatcagc ctgctcggcc gctatctcag 240
 tgg 243

<210> 2766

$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$, where L is the Lagrangian function.

<213> Glycine max

<400> 2769

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 ttcttccac cgcaatggcc accgccacgc ttagccccgc cgacgccgac aagctctcca 120
 acctcaaatc ctccgtcgct gcattgagcc aaatcagtga gaatgagaag aatggattca 180
 caagcctcgt tgctcgttac ctcaagtggcg aacacagcat gttgagtggg gtaagatcga 240
 gacgctacgg atgaa 255

<210> 2770

<211> 245

<212> nucleic acid

<213> Glycine max

<400> 2770

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 tccttccacc gcaatggcca ccaccacgct tagccccgcc gacgccgaca agctctccaa 120
 cctcaaattc tccgtcgctg cattgagcca aatcagtggg aatgagaaga atggattcac 180
 aagcctcgtt gctcgttacc tcagtggcga acacagcatg ttgagtggag gtgctgaagc 240
 tcaat 245

<210> 2771

<211> 309

<212> nucleic acid

<213> Glycine max

<400> 2771

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 aaaacattgg ctgatgtaaa ggggtggcact ttgatttctt acgaaggaag ggttcagctt 120
 ttggaaattg cacaagtccc agatgaacat gtcaatgagt tcaagtcaat agagaagtgc 180
 aaaattttca acacaaataa tttgtgggtg aacttaaatg cagttaaaaag gcttgttgaa 240
 gctgatgctc ttaagatgga aattattccc aatccaaagg aagttgatgg aataaaagtt 300
 cttcagctg 309

<210> 2772

<211> 297
 <212> nucleic acid
 <213> Glycine max

<400> 2772

atgcactatt gtcacagggg aaagagtacg tgtttggtgc caattcggat aacttgggag 60
 ctatagttga cttgaaaatc ttgaatcatt tgatccagaa caagaatgaa tactgtatgg 120
 aggtgactcc caaaacattg gctgatgtaa agggggggcac tttgatttct tacgaaggaa 180
 gggttcagct cctggaaatt gcacaagtcc cagatgaaca tgtcaatgag ttcaagtcaa 240
 tagagaagtt caaaattttc aacacaaata atttgtgggt gaacttaaag gcattaa 297

<210> 2773
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2773

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 agtaccagat gaacatgtca gtgaatttaa gtctatagag aaattcaaaa ttttcaaacac 120
 aaataatttg tgggtaaaact tgaaagcaat taaaaggctt gttgaagctg atgctctgaa 180
 gatggaaatt attcccaatc caaaggaagt cgatggagta aaagttcttc aattggaaaac 240
 tgcagctggg gcagcaataa gggtctttga caaagc 276

<210> 2774
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<400> 2774

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 gaatgaatac tgtatggagg tgactcccaa aacattggct gatgtaaagg gtggcacttt 120
 gatttcttac gaaggaaggg ttcagctcct ggaaattgca caagtccccg atgaacatgt 180
 caatgagttc aagtcaatag agaagttcaa aattttcaac acaaataatt tgtgggtgaa 240
 cttaaagcga gttaaaaggc ttgttgaagc tgatgc 276

<210> 2775

<211>	266
<212>	nucleic acid
<213>	Glycine max

<211> 249
 <212> nucleic acid
 <213> Glycine max

<400> 2778
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 cgatgaacat gtcaatgagt tcaagtcaat agagaagttc aaaattttca acacaaataa 120
 tttgtgggtg aacttaaacy cagttaaaag gcttggtgaa gctgatgctc ttaagatgga 180
 aattattccc aatccaaagg aagttgacgg aataaaaagtt cttcagctgg aaactgcagc 240
 tggtgctgc 249

<210> 2779
 <211> 275
 <212> nucleic acid
 <213> Glycine max

<400> 2779
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 aagttcaaaa ttttcaacac aaataatttg tgggtgaact taaacgcagt taaaaggctt 120
 gttgaagctg atgctcttaa gatggaaatt attcccaatc caaaggaagt tgacggaata 180
 aaagttcttc agctggaaac tgcagctggt gctgcaataa gggtctttga cagggctatt 240
 gggattaatg ttctcgcac acgattcctt cctgt 275

<210> 2780
 <211> 276
 <212> nucleic acid
 <213> Glycine max

<220>
 <221> unsure
 <222> (45)
 <223>

<400> 2780
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 gaacaaagct agggaaaatc ctgaaaaccc ttctattgaa ctgggaccag aatttaagaa 180
 ggtagcaac ttcttgggcc gcttcaagtc aattcctagt atcgttgagc ttgacagtct 240

aaaagtggct ggtgatgtat ggtttggagc tgggtg 276

<210> 2781
<211> 279
<212> nucleic acid
<213> Glycine max

<400> 2781

ccaatccaaa ggaagttgac ggaataaaaag ttcttcagct ggaaactgca gctggtgctg 60
caataagggt ctttgacaag gctattggga ttaatgttcc tcgatcacga ttccttcctg 120
tgaaggcaac ttcagattgc ttcttgtcca gtctgacctc tacactttgg aagacggatt 180
tgtcattcgg aacaaagcta gggaaaatcc tgaaaaccct tctattgaac tgggaccaga 240
atttaagaag gtttagcaact tcttgggccg cttcaagtc 279

<210> 2782
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2782

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ataacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag aacaagaatg 120
aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc actttgattt 180
cttacgaagg aagggttcag ctcttgaaa ttgcacaagt ccccgatgaa catgtcaatg 240
agttcaagtc aatagagaag ttcaaaattt tca 273

<210> 2783
<211> 277
<212> nucleic acid
<213> Glycine max

<400> 2783

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ataacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag aacaagaatg 120
aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc actttgattt 180
cttacgaagg aagggttcag ctcttgaaa ttgcataagt ccccgatgaa catgtcaatg 240

agttcaagtc aatagagaag ttcaaaattt tcaacac

277

<210> 2784
<211> 270
<212> nucleic acid
<213> Glycine max

<400> 2784

caggagctga acccttcctt cgtaagaaat caaagtgcc aacctttacat cagccaatga 60

gttcaagtca atagagaagt tcaaaatttt caacacaaat aatttgtggg tgaacttaaa 120

cgcagttaaa aggcttggtg aagctgatgc tcttaagatg gaaattattc ccaatccaaa 180

ggaagttgac ggaataaaaag ttcttcagct ggaaactgca gctggtgctg caataagggtt 240

ctttgacaag gctatgggat taatgttcct 270

<210> 2785
<211> 292
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (15)
<223>

<400> 2785

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atccaaagga agttgacgga ataaaagttc ttcagctgga aactgcagct ggtgctgcaa 120

taaggttcctt tgacaaggct attgggatta atgttcctcg atcacgattc cttcctgtga 180

aggcaacttc agatttgctt cttgtccagt ctgacctcta cactttggaa gacggatttg 240

tcatcggaac aaagctaggg aaaatcctga aaaccttcta tgaactggga ca 292

<210> 2786
<211> 191
<212> nucleic acid
<213> Glycine max

<400> 2786

gtaaaggggtg gcactttgat ttcttacgaa ggaaggggttc agctcctgga aattgcaaag 60

tccccgatga acatgtcaat gagttcaagt caatagagaa gttcaaaaatt ttcaacacaa 120
 ataatttgtg ggtgaactta aacgcagtta aaaggcttgt tgaagctgat gctcttaaga 180
 tggaaattat t 191

<210> 2787
 <211> 130
 <212> nucleic acid
 <213> Glycine max

<400> 2787

attcggataa cttgggagct atagttgact ggaaaatcctt gaatcatttg atccagaaca 60
 agaatgaata ctgtatggag gtgactccca aaacattggc tgatgtaaag ggtggcactt 120
 tgacttctta 130

<210> 2788
 <211> 253
 <212> nucleic acid
 <213> Glycine max

<400> 2788

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 ggaccagaat ttaagaaggt tagcaacttc ttgagtcgct acatcacctg tcctagtaac 120
 ggacatcatg cttccctaaa agttgctaata catctatagt tctgagcctc gttcatcctc 180
 aaggggacca tcatcattgt atcaaaaacc ggtgttaagc tataagttcc cgacggtgtt 240
 gccattgtag aca 253

<210> 2789
 <211> 236
 <212> nucleic acid
 <213> Glycine max

<400> 2789

ctttttgcca ttcccatcca aggggcagac aggcagggac gggtagtac ctctggcca 60
 cggagacgtc ttcccatcat tagtgaatag tggaaagctt gatgtgctat tatcacaggg 120
 taaggagtat gtgtttgttg ccaattcaga caacctgggt gctgtagttg acttgaaaat 180
 cttaaatacat ttgattgagc acaagaatga atactgtatg gaggtcactc ccaaga 236

The first two columns of the table show the number of
 observations and the number of observations with non-zero
 values for each variable. The third column shows the
 number of observations with non-zero values for each
 variable. The fourth column shows the number of
 observations with non-zero values for each variable.

acaggcacg	gcgggttgta	cctcctggc	cacggagacg	tcttcccatc	attagtgaat	60
agtggaaa	gtgatgtgt	attatcacag	ggtaaggagt	atgtgtttgt	tgccaattca	120
gacaacctg	gtgctgtagt	tgacttgaaa	atcttaaata	atttgattga	gcacaagaat	180
gaatactgta	tggaggtcac	tcccagaca	ttggctgacg	tgaaaggtgg	cactctgatt	240
tcttatgaag	gaa					253

<400> 2791

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gattgagaat	ctcaattcca	aatatggaag	caatgttctt	ttgcttttga	tgaattcatt	180
caacactcat	gatgacactc	aaaagattgt	tgaaaaatac	caaaactcca	atattgagat	240
tcatactttt	aaccagagcc	agtatcctcg	attggttgct	gag		283

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<220>
<221>      unsure
<222>      (226)
<223>
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aagctaaatg gaggcttggg cacaactatg ggttgcactg gtcctaaatc tgtaattgaa 60
gttcgtgatg ggttgacatt tctagattta attgtgatcc agattgagaa tctcaattcc 120
aaatatggaa gcaatgttcc tttgcttttg atgaattcat tcaacactca tgatgacact 180

caaaagattg ttgaaaaata caaaactcc aatattgaga ttcattcttt taaccagagc 240
cagtatcttc gattgggtgc tgagggaactt ttggcattg ccttccaaag ggcatactga 300
caagga 306

<210> 2793
<211> 263
<212> nucleic acid
<213> Glycine max

<400> 2793

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ggcaaacttg atgcactatt gtcacagggt aaagagtatg tatttggtgc caattcagat 120
aacttgggag ctatagttga cttgaaaatc ttaaattcatt tgatccagaa caagaatgaa 180
tactgtatgg aggtgactcc caaaacattg gctgatgtaa aggggtggcac ttgattttct 240
tacgaaggaa ggggttcagct ttt 263

<210> 2794
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 2794

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aagggcatac tgacaaggat ggatggtacc ctctggcca tggagatgtc tttccatcat 120
tattgaacag tggcaaactt atgcactatt gtcacagggt aaagagtatg tatttggtgc 180
caattcagat aacttgggag ctatagttga cttgaaaatc ttaaattcatt gatccagaac 240
aagaatgaat actgtatgga ggtgactccc aaaa 274

<210> 2795
<211> 273
<212> nucleic acid
<213> Glycine max

<400> 2795

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caaatatgga agcaatgttc ctttgctttt gatgaattca ttcaacactc atgatgacac 120

tcaaaagatt gttgaaaaat accaaaactc aaatattgag attcatactt ttaaccagag 180
ccagtatcct cgattgggtg ttgaggactc tttgccattg cttccaaag ggcatactga 240
caaggatgga tggtagcctc ctggccatgg tga 273

<210> 2796
<211> 254
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (251)
<223>

<400> 2796

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caattccaaa tatggaagca atgttccttt gcttttgatg aattcattca acactcatga 120
tgacactcaa aagattggtg aaaaatacca aaactccaat attgagattc atacttttaa 180
ccagagccag taccctcgat tgggtgctga ggactttttg ccattgcctt ccaaagggca 240
tactgacaag natg 254

<210> 2797
<211> 274
<212> nucleic acid
<213> Glycine max

<400> 2797

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tgaggacttt ttgccattgc cttccaaagg gcatactgac aaggatggat ggtaccctcc 120
tggccatgga gatgtctttc cacattattg aacagtggca aacttgatgc actattgtca 180
cagggtaaag agtatgtatt tggtgccaat tcagataact tgggagctat agttgacttg 240
aaaatcttaa atcatttgat ccagaacaag aatg 274

<210> 2798
<211> 243
<212> nucleic acid
<213> Glycine max

<400> 2798
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gattcatact ttttaaccaga gccagtatcc tcgattgggt gctgaggact ttttgccatt 180
gccttccaaa gggcatactg acaaggatgg atggtaccct cctggccatg gagatgtcct 240
tcc 243

<210> 2799
<211> 253
<212> nucleic acid
<213> Glycine max

<400> 2799
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ttattgaaca gtggcaaact tgatgcacta ttgtcacagg gtaaagagta tgtgtttgtt 120
gccaatcggg ttaacttggg agctatagtt gacttgaaaa tcttgaatca tttgatccag 180
aacaagaatg aatactgtat ggaggtgact cccaaaacat tggctgatgt aaaggggtggc 240
actttgattt ctt 253

<210> 2800
<211> 246
<212> nucleic acid
<213> Glycine max

<400> 2800
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cagtatcctc gattgggtgt tgaggacttt ttgccattgc cttccaaagg gcatactgac 120
aaggatggat ggtaccctcc tggccatggt gatgtcttcc catcattatt gaacagtggc 180
aaacttgatg cactattgtc acatggtaaa gagtatgtgt ttgttgccaa ttcggataac 240
ttggga 246

<210> 2801
<211> 265
<212> nucleic acid
<213> Glycine max

<400> 2801
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 gcttgggaac aactatgggt tgcactgggtc ctaaattctgt aattgaagtt cgtgatgggt 120
 tgacattttct agatttaatt gtcattccaaa ttgagaatct caattccaaa tatggaagca 180
 atgttccttt gcttttgatg aattcattca acactcatga tgacactcaa aagattggtg 240
 aaaaatacca aaactcaaatt attga 265

<210> 2802
 <211> 261
 <212> nucleic acid
 <213> Glycine max

<400> 2802
 atctagaggt tgacattttct agatttaatt gtgatccaga ttgagaatct caattccaaa 60
 tatggaagca atgttccttt gcttttgatg aattcattca acactcatga tgacactcaa 120
 aagattggtg aaaaatacca aaactccaat attgagattc atacttttaa ccagagccag 180
 tatcctcgat tggttgctga ggactttttg ccattgcctt acaaagggga tactgactcc 240
 gatggctggg accctcctgg c 261

<210> 2803
 <211> 195
 <212> nucleic acid
 <213> Glycine max

<400> 2803
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 aaatattgag attcatactt ttaaccagag ccagtatcct cgattgggtg ttgaggactt 120
 tttgccattg ccttccaaag ggcatactga caaggatgga tggtagcctc ctggccatgg 180
 tgatgtcttc ccatac 195

<210> 2804
 <211> 265
 <212> nucleic acid
 <213> Glycine max

<400> 2804

gttgaagcta aatggaggct tgggcacaac tatgggttgc actggtccta aatctgtaat 60
tgaagtctgt gatgggttga catttctaga ttgaatggtg atccagattg agaatctcaa 120
ttccaaatat ggaagcaagt tcctttgctt ttgatgaatt cattcaacac tcatgatgac 180
actcaaaaga ttgttgaaaa ataccaaaac tccaatattg agattcatac ttttaaccag 240
agccagtatc ctcgattggt tgcgtg 265

<210> 2805
<211> 262
<212> nucleic acid
<213> Glycine max

<400> 2805

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ctggtgttaa gctggaagtt cccgatggtg ctgtcatttc ggataaggaa attaatggcc 120
cagaggacct cctgtgagga agcccgtga gtttagaagt atcagactgt atactatctt 180
tatggtctca tgttttttcc aattattact actcccaagt ttgatgggca aagaaaataa 240
gtcccttttt gtttgtcttc tg 262

<210> 2806
<211> 249
<212> nucleic acid
<213> Glycine max

<400> 2806

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gttcccgatg gtgctgtcat ttccgataag gaaattaatg gccagagga cctcctgtga 120
ggaagcccgc tgagttttaga agtatcagac tgtatactat ctttatgggc tcatgttttt 180
tccaattatt actactcca agtttgatgg gcaaagaaaa taagtcctt tttgtttgtc 240
ttctgattc 249

<210> 2807
<211> 183
<212> nucleic acid
<213> Glycine max

<400> 2807

663270 "E3T2E60

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gcttgacagt ctaaaagtgg caggcgatgt atggtttgga gctgggtgtaa tccttaaggg 120
aaaagcaagt attcttgcaa aaccgggtgt gaagctggaa atacctgacg gagctgtgat 180
cgc 183

<210> 2808
<211> 184
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (6)...(8)
<223> unsure at all n locations

<400> 2808

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cctaacctaa gcatttggtc cgagccttcc tttaaaccta agccgtagc ctgaatgggt 120
ggggaagacc ttttggaat ggccttccaa aggccttcct gccaaagggtg gttggtacct 180
tcct 184

<210> 2809
<211> 389
<212> nucleic acid
<213> Glycine max

<220>
<221> unsure
<222> (340)
<223>

<400> 2809

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caagagggtt gttgacactg ttgaagtaag gcagaagaag ccctcatttt caaaggacac 120
agcagctgga ccagcaataa agttctttga taatgtattt ggtgtctccg tgcccgaatc 180
tcgctttctt cccttggtatg caacatcaga tctattactt cttcagtcag atctatacac 240
ttgtagagaa ggtgttttaa ctcgaaatcc agctagaact aaccctttaa atcctgtgat 300
agacttggga cctgaatttg aaaagtttgg tgactttcan agtcgcttca gatccattcc 360

002248-0460
002248-0460

aagcatcatt gaggttggac agtttgatg

389

<210> 2810
<211> 411
<212> nucleic acid
<213> Glycine max

<400> 2810

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cgctctcaaa tccgccgtcg ccggattgaa cgaaatcagt gagagtgaga agaacggatt 120
catcagcctc gtcagccgct atctcagtgg cgaagcgcag catgtggaat ggagcaagat 180
ccagacgcct acggacgaag tggttgtgcc ttacgacact ttggcgccaa ctctgatgg 240
ttcttcggac gtgaagaatc tattggacaa gcttgtggtg ttgaagctaa atggaggctt 300
gggcacaact atggggttgca ctggctctaa atctgtaatt gaagttcgtg atggggttgac 360
atttctagat ttaattgtga tccagattga gaatctcaat tccaaatatg g 411

<210> 2811
<211> 358
<212> nucleic acid
<213> Glycine max

<400> 2811

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gaacatgtca atgagttcaa gtcaatagag aagttcaaaa ttttcaacac aaataatttg 120
tgggtgaact taaatgcagt taaaaggctt gttgaagctg atgctcttaa gatggaaatt 180
attcccaatc caaaggaagt tgatggaata aaagttcttc agctggaaac tgcagctggt 240
gctgcaataa gggtctttga caaggctatt gggattaatg ttctctgatc acgattcctt 300
cctgtgaagg caacttcaga tttgcttctt gtccagtctg acctctacac tttggaag 358

<210> 2812
<211> 404
<212> nucleic acid
<213> Glycine max

<400> 2812

gattgttggt atataccaaa actccaatat tgagattcat acttttaacc agagccagta 60

tacaggacaa gcaagtat ttgcataacc ggggtgtgaag ctggaaatac ctgac

415

1

2

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